Textile Industries

Formerly "COTTON"

A W. R. C. Smith Publication

FEBRUARY, 1954

Highlights

Will Spinners Act on Gin-Damaged Cotton? . . . 145

State of the Rackets 165

SPECIAL SECTION

71 Case History Reports tell how mills

- **save labor**
- **simplify jobs**
- **reduce waste**
- **improve quality**
- **increase production**

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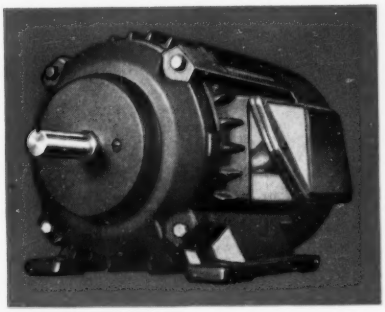

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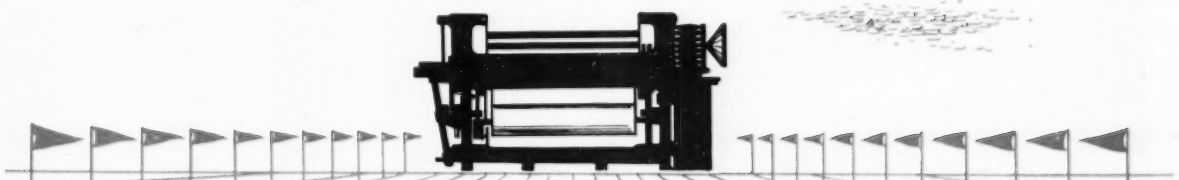

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Textile Industries

Vol. 118, No. 2
February, 1954

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TEXTILE INDUSTRIES is published monthly at 116 E. Crawford St., Dalton, Ga., by W. R. C. Smith Publishing Company, Dalton and Atlanta, Ga., U. S. A. W. J. Rooke, chairman of the board; R. P. Smith, president. Executive and Editorial Offices: 806 Peachtree St., Atlanta 5, Ga.
Subscription Rates: United States and Possessions, $2.00 for one year; Canada, South America, Central America, $2.00 per year; Foreign Countries, $5.00 per year.
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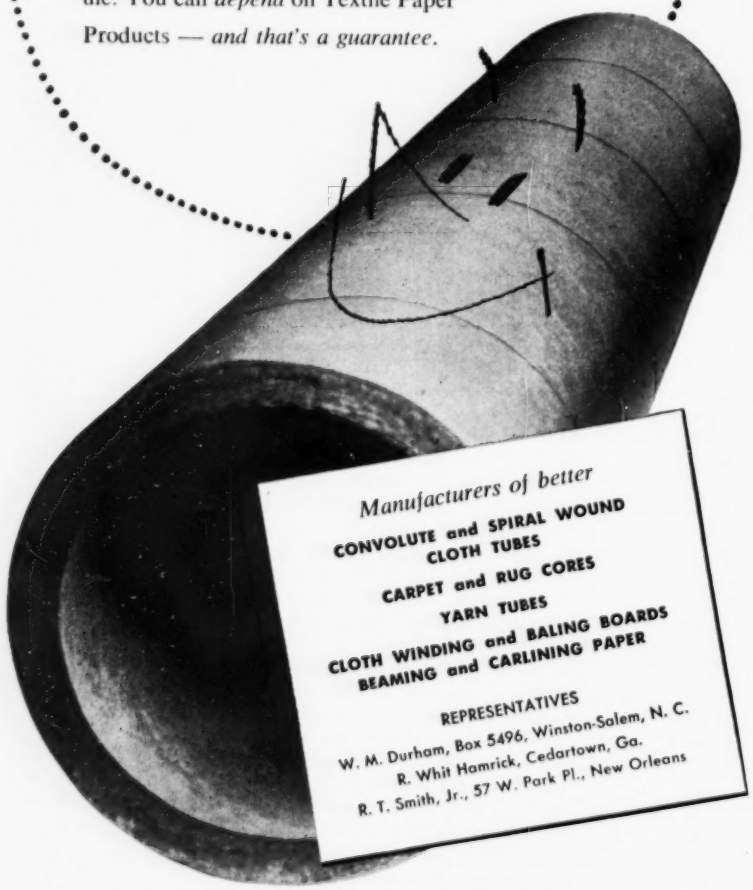
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Shorts and Remnants

► If you are one of those inhibited souls who start at the front and work toward the back of TI or any other magazine, you have some checking to do. Because this month (for the sixth consecutive February) the editors are getting you into a lot of mills to see just how well that piece of new equipment pays off. You'll find about 70 Case History Reports based on what a mill thinks of stuff it paid for, if the thoughts were printable.

► In fact, all the gadgets mentioned in the equipment performance reports are working so well that we don't see how you can run your mill without them. Even that whichit with the countersunk davit will pay for itself in six months.

► All the Case Histories read like Horatio Alger success stories. But they do because TI's editors aren't given to blood-letting. They run across a lot of new gadgets and equipment that have bugs in them, but they take the viewpoint that the radio and fluorescent lamps had bugs in them too when they first started. So, give'em a chance—don't knock'em 'til they get their breath—and then tell how good they are when perfected. TI could kill off some potential profits for the industry by reporting adversely on a new machine being tested by a mill before research and the mill and the manufacturer got it to working smoothly. Besides, why should TI report failures—competitive salesmen carry the word quicker.

► And speaking of quick, turnover is heavy in the publishing business. A new secretary that began work this morning just came in and resigned. Doesn't she know she is losing her share in the retirement fund?

► Ole S&R may not be around for retirement if too much of this happens: A foreign subscriber, upon reading our dissertation about the handling of the Business Reply Card requests for booklets and more information, accuses us literally of flushing them down the drain. Quite honest about it, he said such time had elapsed and still no booklets that he forgot what he requested, but he was sure he asked for nothing so exten-

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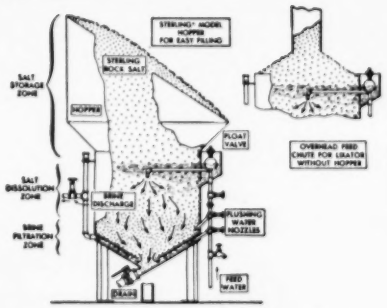

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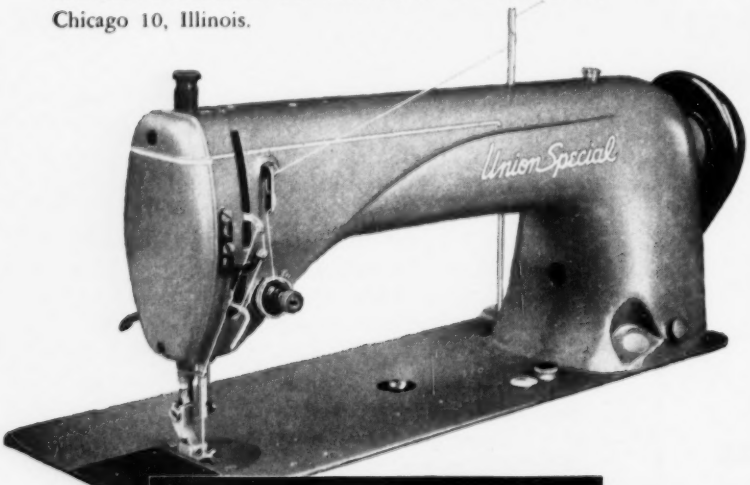

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IT'S THE SIXTY-ONE-FOUR IN '54!

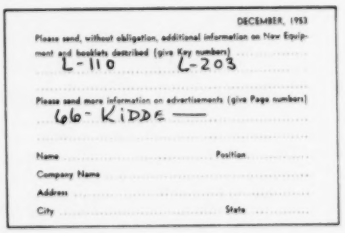
Shorts and Remnants

sive as how to install a complete spinning mill.

► Well, in that instance he had a bonafide beef, because some American companies may occasionally fail to send literature to foreign inquirers—but the Business Reply Card requests are handled in a jiffy by TI. So—

► Ole S&R took it upon himself to chastise a company for this complacency, whereupon the sales manager said he was just too busy with American mills right now, and he didn't have time to answer those foreign inquiries from India, South America, Mexico, and Texas. But rest assured that he was in the minority. Foreign subscribers please continue to send requests on the Business Reply Cards; TI will see that you are served.

► One type of Business Reply Card had us licked until recently. The sender would fill in the card correctly for the information, but


DECEMBER, 1953

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L-110 L-203

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omit his name and address. Now we just fill his envelope with the booklets and mail it without an address. Our conscience is clear.

► But getting back to our mill friends in Texas (U.S.A., that is), Friend Tom invites us out for that visit and says the boys at Post have a new hobby which is rattlesnake hunting and arrangements have been made to take Ole S&R along. No danger, says he, because the snake is hog-tied like a steer. At our age

LOOK TO SUPREME...

To be up-to-date on what's newest in knitting machine development, you should check with Supreme. Supreme has continually led the field in producing profit-knitting machinery... highlighting super-speed production and multi-fabric versatility. This has given Supreme users more yardage per hour plus greater flexibility in production. By providing this extra "profit-knitability", Supreme helps knitters keep up with and ahead of competition.

Today, Supreme is continuing to push forward its' program of engineering, research and development toward even higher achievements in the knitting field. Remember to contact Supreme for the very latest in knitting equipment. *Write for complete information on any of the Supreme models mentioned on this page.*

...for your future "profit-knitability"

IC — Fleeces, Coatings

ML — Pile, Loop-Terry and Plush

MJ — Body Size Jersey, Wide Striped Jersey

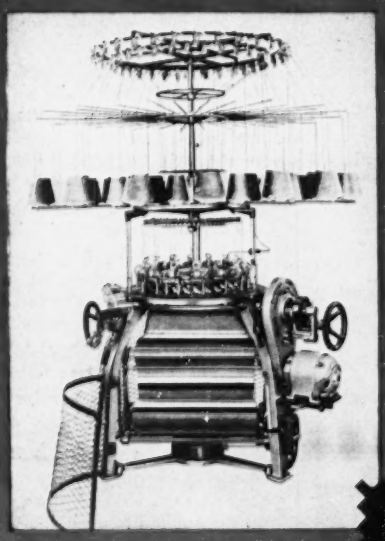
ROF — Jacquard Type Floatless Patterns

SR — Plain and Swiss Rib

LRP — "Vect-Knit" Mesh Patterns

SA/AF — Variable Striped and Patterned Jersey

***MLT/SA** — Long and Short Loop Four Color Striped Terry



*Patent Pending

Supreme's MLT/SA* Gives The Knitter Varied Profit Possibilities

A recent example of Supreme's progress in multi-fabric machine engineering is the MLT/SA. This versatile model knits a striking new type of automatic variable striped or solid colored, long loop or regular loop terry fabrics. Loops can be adjusted for different lengths and densities. The MLT/SA uses both natural and synthetic yarns . . . produces beautifully textured fabrics ranging in weight from heavy bathrobe terry to light polo shirt terry. It runs up to 56 pounds per hour. It can knit all of the variable striped jersey fabrics made on the Model SA and can easily be converted in your plant for the manufacture of striped, patterned and pattern placed jersey fabrics made on the Model SA/AF.

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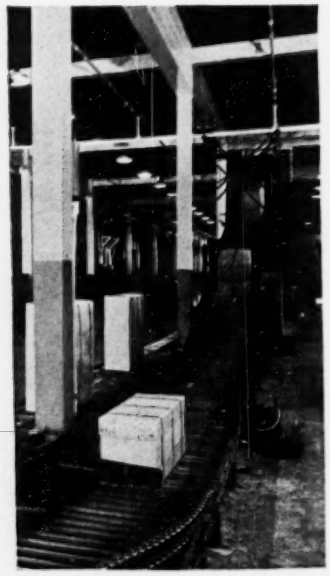
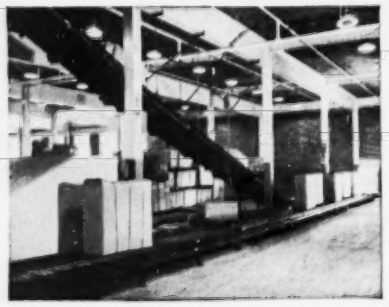


DON'T CARRY THAT PACKAGE!



Cost Saving

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Every time you **MAN**handle a package you add to the cost of the product and nothing to the value. Let Alvey Engineers show you how direct savings can be made by the adaptation of Alvey Conveyors in your mill.

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86B

Shorts and Remnants

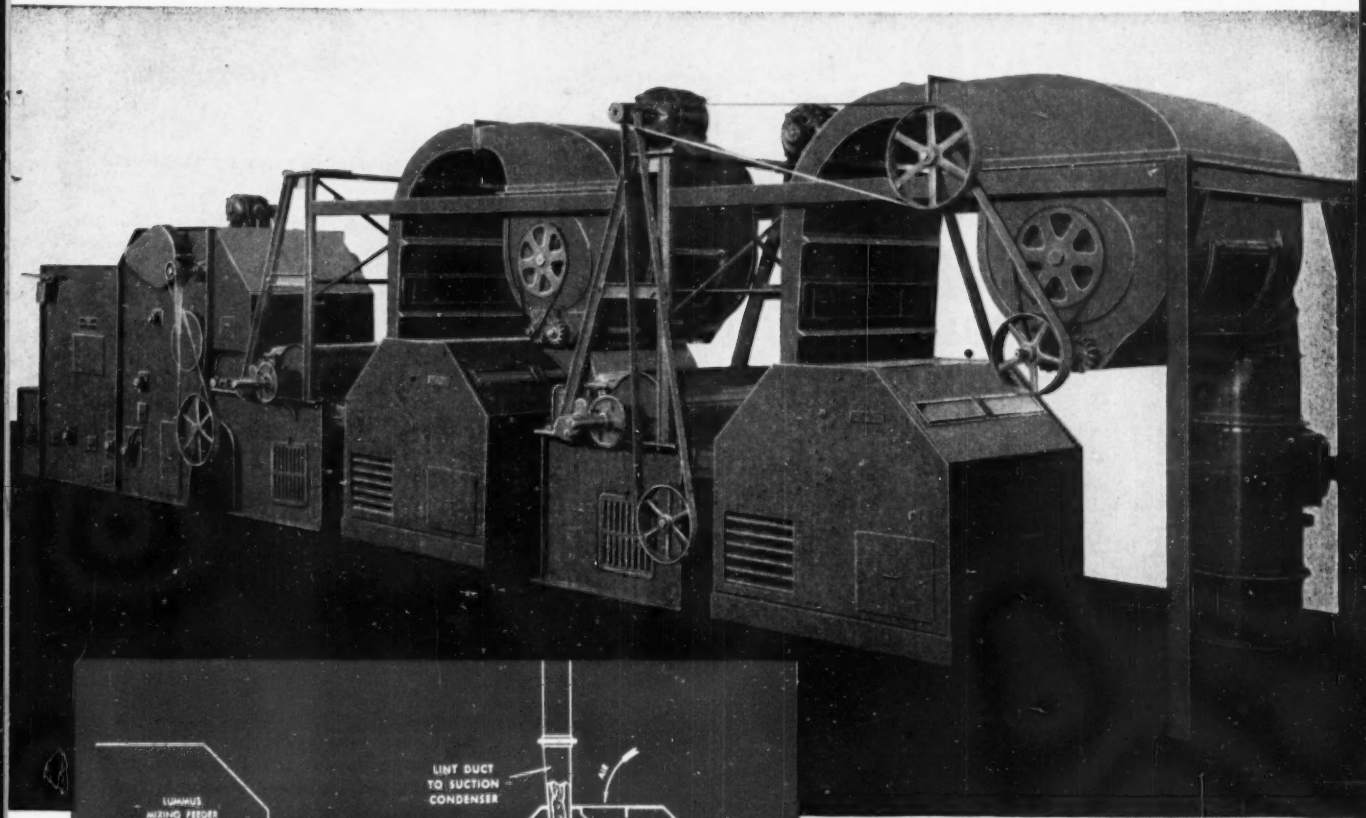
we're taking on no new bad habits. Our counter offer: make a motion picture of the affair and we'll view via projector.

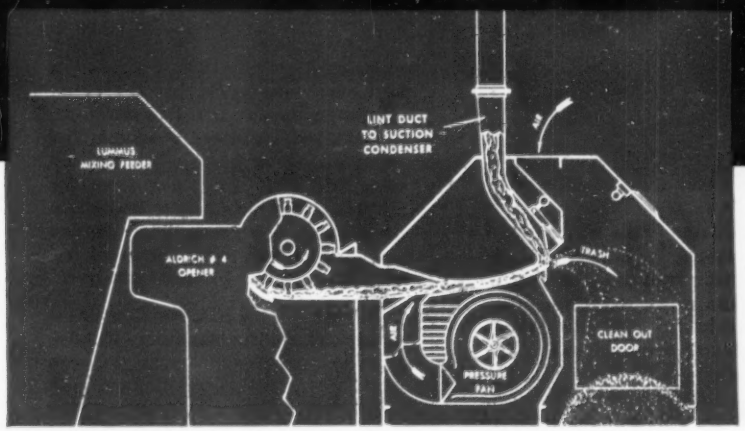
► Did it ever occur to you that your reading habit, almost an intangible thing, is important to a publisher? For instance, some people start at the front and flip toward the back, others read from back to front; some open the book in the middle, hold half in each hand, and read by flipping the left and right pages alternately until they wind up at both covers, then drop the whole thing in the wastebasket. Some read the headlines first, others the paragraph heads; still others look at the pictures; and many turn down the pages as they flip so they can return to the story of their interest. Many look for bad news, some turn to certain departments first and then go back to the remainder of the book. More than 95% read the advertising pages, irrespective of position in the book. One fellow just reads the two pages the book flops open to.

► When asked, a lot of mill men will reply that they want technical information in a compact story, yet the detailed articles bring the greater reader response. Some claim they don't have time to read anything, but are the very ones who find the word "free" in an advertisement. There are those who "wouldn't change jobs for the world," but follow up every classified ad for a position open. A few route one copy of a publication to 25 men, but ask for 25 copies of certain articles. There are those who never want their names in print, but are upset when they are omitted. There are some who speak off the record, but complain when they are not quoted. There are those who object to so many advertising pages, but write for clip sheets of ads carrying coupons. Readers are strange folks. How do we know? Ole S&R is one.

► Now here's something to aid the reader of all magazines. It's an electronic machine that may be able to scan up to five million published pages per hour and segregate those containing information from those just doctored up with pretty colors. Imagine getting all the data you need from TI in a matter of seconds, or before going on a trip having all billboard advertising condensed. Flaw

ALDRICH-LUMMUS COTTON CLEANING SYSTEM:





Super-Jet picks up the cotton on a stream of air, floats it to a sharp angle where an aperture strips out the trash. No saws, no moving parts at all.

AN ENTIRELY NEW AND DIFFERENT COTTON CLEANING SYSTEM

The Super-Jet is the basis of a new system of cotton cleaning that really cleans cotton. In use for more than three years it has invariably removed more trash than any system with which it has been compared.

The Aldrich-Lummus system causes no fibre damage, creates no neps, removes no spinnable fibre because the trash is removed almost entirely by air, with only enough beating to open the cotton so it can be cleaned.

We have been given permission to invite you to visit mills with Aldrich-Lummus installations, running the same type of cotton you use, and we will gladly arrange such visits at your convenience.

ALDRICH-LUMMUS CLEANING SYSTEM

Made by **LUMMUS COTTON GIN CO.**
Columbus, Ga.
and
ALDRICH MACHINE WORKS
Greenwood, S. C.

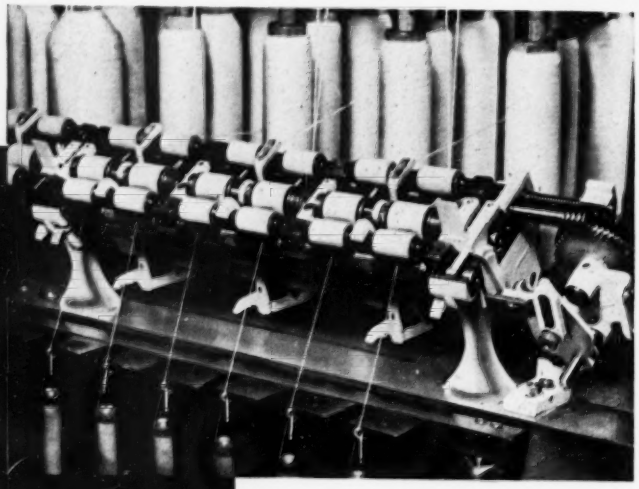
Sold and Installed by **AldricH MachinE**
Greenwood **WorkS** South Carolina

Proof of **WAKEFIELD** *Performance*

NO. 1 OF A SERIES

BECAUSE THEY WITHSTAND HEAVY TOP ROLL PRESSURE

SACO-LOWELL SHOPS USE *WAKEFIELD* ROLL STAND BEARINGS



Shaw Spinning, is one of the most effective long draft spinning assemblies in the world for cotton and short synthetics. After 10 years of experimentation, Saco-Lowell has found that fibre control required for long draft necessitated heavy roll pressure. This heavy pressure required a better, stronger, more rugged bearing. Saco-Lowell found that Wakefield bearings met and exceeded all their requirements.

For years, the Wakefield Bearing Corporation has produced all types of oilless and self lubricating bearings, bushings and machine parts. In addition, Wakefield holds an enviable reputation for quality and reliability in the production of all types of Special Textile Bearings and Parts including wood bearings, white wood turnings, swifts and swift parts and textile loom sheaves.

If you have a special problem our experienced research, development and engineering staffs are available for consultation without obligation. Our diversified and lengthy experience in the field makes Wakefield a name on which you can rely with utmost confidence to fill your requirements. Complete catalog information will be sent on request.

WAKEFIELD

BEARING CORP.

29-99 FOUNDRY STREET

WAKEFIELD, MASS.

In Canada: WAKEFIELD BEARINGS OF CANADA, Limited, 55 St. James St., West, Montreal, Can.

Shorts and Remnants

that eliminates us is ability to understand is still required.

► Progress in other fields: The General Services Administrator stopped Uncle Sam from paying 38¢ for a 3¢ box of paper clips.

► Can you identify the source of these quotable quotes of the month? An aristocrat is one who has seen better days . . . . American business is acting like a hypochondriac, constantly popping a thermometer in its mouth, almost hoping that something will go wrong . . . . What we need is not a nickel cigar but a house of detention . . . . Save your Confederate money, boys, Atlantic City will be the farthest point North reached by such a large southern force since Gettysburg . . . . If pants go up, socks will not be far behind.

► In November Ole S&R commented on the question "What does a Scotsman wear under his kilt?" and offered to answer if the inquirer enclosed a self-addressed envelope. The office was flooded by an inquiry, and since Ole S&R was away from the city, his little lady helper undertook the answer. She promptly forwarded a blank sheet of paper. How did she know? Research, brother, research.

► With the big Atlantic City Show (American Textile Machinery Exhibition) only a short time away, you should have these facts before you: Convention hall is the world's largest auditorium (a 13-story building could be erected therein and not reach the ceiling) . . . . the longest home-run ever hit by Babe Ruth would not reach the far end of the hall from the batter's plate . . . . about 300 firms will exhibit their wares . . . . dollar value of machinery and supplies on display will approximate $10 million . . . . when your feet get tired, push-chairs on the boardwalk solve the problem . . . . Jitney rides cost a nickel . . . . you can get there by plane, train, bus, ship, car, or capillary action. Plan to go and send Joe.

► Strictly Textile Items: A judge rules that if two small cars can get into one parking meter space, the cops can do nothing to collect double.

Department of Agriculture can supply a technical bulletin on "Ecological effects of planned burning of sagebrush-grass range on the Upper Snake River Plains."

'Twas 60 for 60 when Fred Scholler

Memo: See C&K's New Looms

American Textile Machinery Exhibition

ATLANTIC CITY, NEW JERSEY
APRIL 26-30, 1954

Crompton & Knowles Loom Works will occupy spaces 323-338 and 330AA-331AA in the huge exhibition hall at Atlantic City, April 26-30, 1954. Some 270 exhibitors have already spoken for over 90,000 square feet of this building. Crompton & Knowles' space will be larger than they have occupied before because of the variety of new looms they plan to show.

Crompton & Knowles' entire line will place even more emphasis than heretofore on the flexibility and versatility built into their looms and the latitude thus given the cloth designer and weaver. To be shown are:

1. A new Narrow Fabric Loom weaving zipper tape.

2. An entirely new W-3A Loom equipped with a Select-A-Pic mechanism with which many pick-and-pick weaves may be woven automatically.

3. One of C&K's latest Jacquards.

4. Five new looms never shown before. These are:

   a. One loom weaving a gray flannel filling mix.

   b. Another loom for the automatic weaving of a two-color denim.

   c. Another "first"—a loom that can weave automatically 4x1 filament dress goods.

   d. A loom developed for 4x1 spun rayon blends.

   e. A 2x1 loom weaving upholstery fabrics.

It is planned to build these new looms with a single color rotary magazine, but they also may be equipped for two and four-color work. They can be equipped with undercam harness motions, end cam harness motions, dobbies, head motions, and jacquards.

All of the new looms will be equipped with new letoffs, although any of the present letoffs may be applied to them. All of the new looms may be equipped with any kind of conventional takeups.

Crompton & Knowles LOOM WORKS

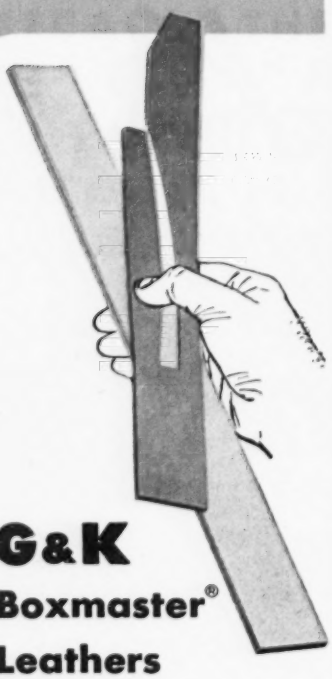
WORCESTER 1, MASSACHUSETTS, U. S. A.

Philadelphia, Pa. · Charlotte, N. C. · Allentown, Pa.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Fabrics . . . which are **WOVEN** Fabrics.

the helping hand to better weaving



G&K Boxmaster® Leathers save money for you in the long run!

Hit! . . . and slide! That's what the shuttle does as it enters the box at 30 miles an hour! That's why binder and box plate leather must be tough and resilient to withstand the impact, with a deep velvety surface to bring the shuttle to a gentle stop.

Hairitan® Boxmaster Leathers *cut clean*, with smooth catch-free edges. The leathers need no waxes or fillers . . . do not bleed or discolor the filling yarn.

FREE CATALOG: Shows the great Orange Line of Textile Leathers for weaving — also Aprons and Tapes.

GRATON & KNIGHT COMPANY
Worcester, Massachusetts
DIXIE LEATHER CORPORATION
Albany, Georgia

GRATON AND KNIGHT® Orange® Line
Estab. 1851 T-1

TEXTILE LEATHERS

Shorts and Remnants

celebrated the 60th birthday of Bill Jackson with 60 friends present.

Sign in restaurant: "As our silverware is not a type of medicine, it should not be taken after meals."

Worth Street Historical Society recently celebrated the centennial of the establishment of textiles in the Worth Street marketplace; Indians were there before textiles.

A late Christmas card from Susan: "Susan's Greetings."

The U. S., with 7% of world's population, produced nearly 40% of the world's leather footwear.

In the arts and sciences, the thirties are said to be a man's most creative years.

Studies indicate that the fedora type hat is rapidly replacing the cap as headdress for U. S. men; cap market now is to men who own little foreign cars.

Finisher Gets . . .

" . . . 10 copies of article 'Finisher Gets Improved Product and Quicker Style Flexibility' . . . your October issue. . . . "

J. A. McCARMACK
Albany Felt Co.
Albany, N. Y.

Training Seamers

" . . . be more than grateful . . . . reprints of 'Training Seamer Operators' by Sam Boyer. . . . "

PETER F. EDMISTON
John Skelton & Son Ltd.
Lincolnshire, England.

► Demand for article great. Our supply exhausted.

Core Testing Wool

" . . . kindly furnish us with 30 reprints from your January 1950 edition entitled 'Symposium on Core Testing Wool' . . . . "

H. M. RUGG
Fred Whitaker Co.
Philadelphia, Pa.

► Another popular article. Supply almost depleted. Permission granted to reproduce.

Ramie

" . . . any reprints of editorial articles on the production and processing of kenaf and ramie . . . "

W. H. STUART
The Stuart Company
New York, N. Y.

► "Ramie Today" from the August 1948 issue of TI (pages 99-119) was an extensive treatment of the sub-

PULLINGRIP

G&K Leather Belting "bear hugs" the pulleys for more production-power

It Grips — Leather's resilient, frictional surface "bear hugs" the pulley face, causing belt and pulley to move as one power unit.

It Pulls — Leather is strong, flexible, with controlled stretch—gives peak performance on *any* drive.

It's 3-Dimensional — Leather's millions of fibres are interlaced in all directions to form the tough *three-dimensional* structure so necessary for PULLINGRIP — *developed to the highest degree in G&K Leather Belting.*

Call your G&K Industrial Supplies Distributor for flat, round, link and V-belting, belt lacing, dressings, cements, packings and specialty leathers . . . made by Graton & Knight, the world's largest manufacturer of industrial leather products.

Catalog 101 shows RESEARCH®, HEART OAK and SPARTAN® Leather Belting — also special belting for Stripper, Spindle and Universal Winders. It's free.

GRATON & KNIGHT Company
WORCESTER, MASSACHUSETTS

Engineered GRATON AND KNIGHT
B-4 Estab. 1851

LEATHER BELTING

LUBRICATING—or Just Oiling?

The above cartoon is not meant to infer that your oilers are doing a hit or miss job, but to remind you that your lubrication progress may not be keeping pace with your technological progress.

The first step in lubrication progress is planned lubrication. This means proper application of the right kind and amount of a lubricant at the right time.

Gulf Sales Engineers, working hand-in-hand with your personnel, will suggest a method of planned lubrication for every room in your mill.

Planned lubrication can give added life and improved performance to your machines. It can cut power consumption and part replacements, as well as halt rust and corrosion.

Use the chart below as a guide in determining whether your mill utilizes sound lubrication practices. If not, call in a Gulf Sales Engineer. He is trained in petroleum technology and has a thorough knowledge of textile machinery operation. He will help you reap the benefits of planned lubrication.

GULF INDUSTRIAL LUBRICATION

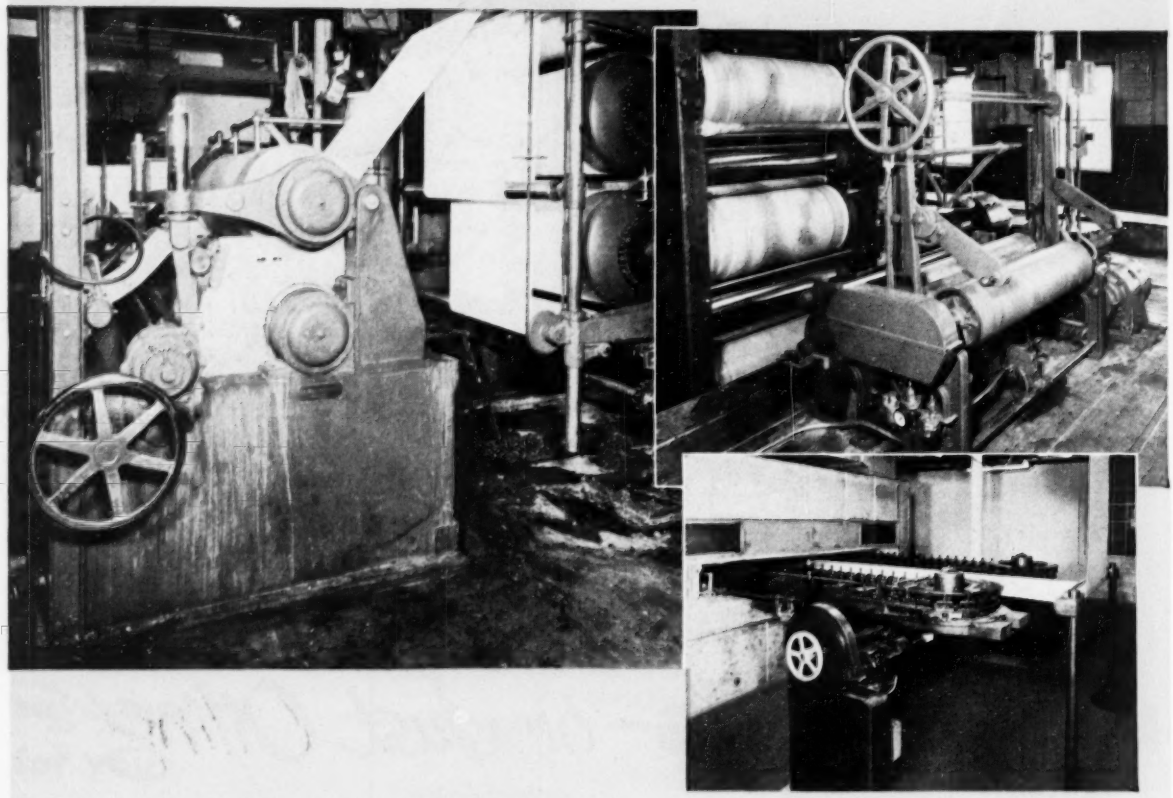
Gulf Oil Corporation
Gulf Refining Company
GULF BUILDING, PITTSBURGH, PA.

LUBRICATION CHECK CHART

Do you utilize these sound lubrication practices?

YES	NO	
☐	☐	Trained lubrication personnel
☐	☐	Right lubricant for the job
☐	☐	Proper application of the lubricant
☐	☐	Definite lubrication schedule
☐	☐	Proper storage and handling

Four Machines . . . One Production Plan



Here are four Butterworth Machines in a well-known wet finishing plant — tenter, calender, padder, cylinder dryer.

Each machine plays a part in the mill's overall production plan. Each was selected from the complete Butterworth line based on a careful analysis of production problems — fabrics being processed, space limitations, length of runs and many other factors.

The Butterworth Straight Automatic Tenter, with speeds in excess of 200 yards per minute, is adaptable to the widest range of fabrics.

Butterworth Calenders are made in many types and sizes from light 2-roll machines with lever pressure or micro-set to 9-roll hydraulic machines with micro-set.

Butterworth Padders operate easily and accurately up to 15-ton loading pressure, either micro-set or pneumatic. Choice of 2-roll or 3-roll mounted in spherical roller bearings for long trouble-free life.

Butterworth Cylinder Dryers are made with copper or stainless steel cylinders, vertical or horizontal arrangement, fabricated or cast iron columns, gear or sprocket and chain drive.

Let a Butterworth engineer give you facts and figures on a production-planned installation of Butterworth Machines — for increased yardages, lower production costs.

H. W. BUTTERWORTH & SONS CO.

Bethayres, Pennsylvania

1211 Johnston Building, Charlotte, North Carolina
187 Westminster Street, Providence, Rhode Island

Machines for Bleaching, Boiling-Out, Mercerizing, Dyeing, Finishing and Embossing : : For Spinning Machines for Synthetic Fibers : : Calender Rolls : : Tenter Chains

BUTTERWORTH

TEXTILE MACHINERY EXHIBITION
AMERICAN ASSOCIATION
ATLANTIC CITY APRIL 26-30 1954

Shorts and Remnants

ject. No reprints available now; request from Bibliofilm Service, U. S. Dept. of Agriculture Library, Washington 25, D. C.

More Interference

" . . . 'Machine Interference' in the August issue was a very valuable contribution and Prof. Jones should be congratulated for his work. . . "

OSBERT HUGHES
Dan River Mills, Inc.
Danville, Va.

Accident Rate

" . . . your December issue . . . . article on 'Decreased Accident Rate' . . . . read with much interest and think it is very good . . . . would appreciate your sending several copies."

L. W. MONTGOMERY, JR.
Pepperell (Ala.) Mfg. Co.

Most Effective Means

" . . . great interest the article 'Flammable Fabrics Act' . . . Mr. Buck has done a marvelous job of presenting this subject in terms that will be understood by even non-technical people. Our organization has received a number of inquiries . . . we feel that the most effective means of answering these inquiries would be to provide our clients with a copy of Mr. Buck's article. . . . "

ROBERT L. STUTZ
President
Better Fabrics Testing Bureau, Inc.
New York, N. Y.

Service

"We wired you on Monday that we urgently needed sixty copies of 'The Flammable Fabrics Act' for a sales conference being held here in our offices. We wanted to let you know these were received in time and to thank you very much for getting them to us so quickly."

OLIVER ISELIN, JR.
Iselin-Jefferson Co., Inc.
New York, N. Y.

More Flaming Fabrics

"Would you kindly send to us by special delivery 35 copies of the report by George S. Buck, Jr., on the 'Flammable Fabrics Act.' "

DAVID E. SCHWAB
President
Lace & Embroidery Assn. of America
New York, N. Y.

Chief Organ

" . . . have taken your address from a friend and understand that you are the chief organ of the textile industry in U.S.A. . . . send us one copy to initiate our subscription. . . . "

FOREIGN

► Friend is a friend indeed.

Mr. Rooke

Mr. Smith

William J. Rooke, formerly president of W. R. C. Smith Publishing Company, publishers of TEXTILE INDUSTRIES and six other journals, has been elevated to chairman of the board. He is succeeded as president by **Richard P. Smith,** who has held the position of executive vice-president.

Mr. Rooke recently completed his 40th year with the company. He is a past president of the Associated Business Publications, and is currently vice-chairman of the National Business Publications, Inc.

Mr. Smith has been associated with the company since he was graduated from Virginia Military Institute in 1934. Both men previously served as business managers of TEXTILE INDUSTRIES or its predecessor "Cotton" magazine.

...From SPARTANBURG, S. C.

CDF TEXTILE NEWS

DILECTO
CONDITIONING BOXES

Want boxes that resist moisture, chemicals, steam, and dyes? C-D-F builds a superior line of boxes and trucks from Dilecto, a tough laminated phenolic plastic. Although higher priced, Dilecto boxes last for years, are little affected by many acids, are insoluble in ordinary solvents. They withstand heat, steam, water. Get the facts. Talk over your special materials handling problems with an expert . . . your C-D-F sales engineer.

DIAMOND FIBRE
ROVING CANS

Strong, tough, smooth. That's the industry reputation for C-D-F roving cans. Genuine Diamond Vulcanized Fibre body is finished inside and out with a moisture resistant synthetic enamel. Steel top rim is rust resistant plated, smooth, snugly fitted. From a sample can to carload full . . . with C-D-F you get smooth, seamless uniformity.

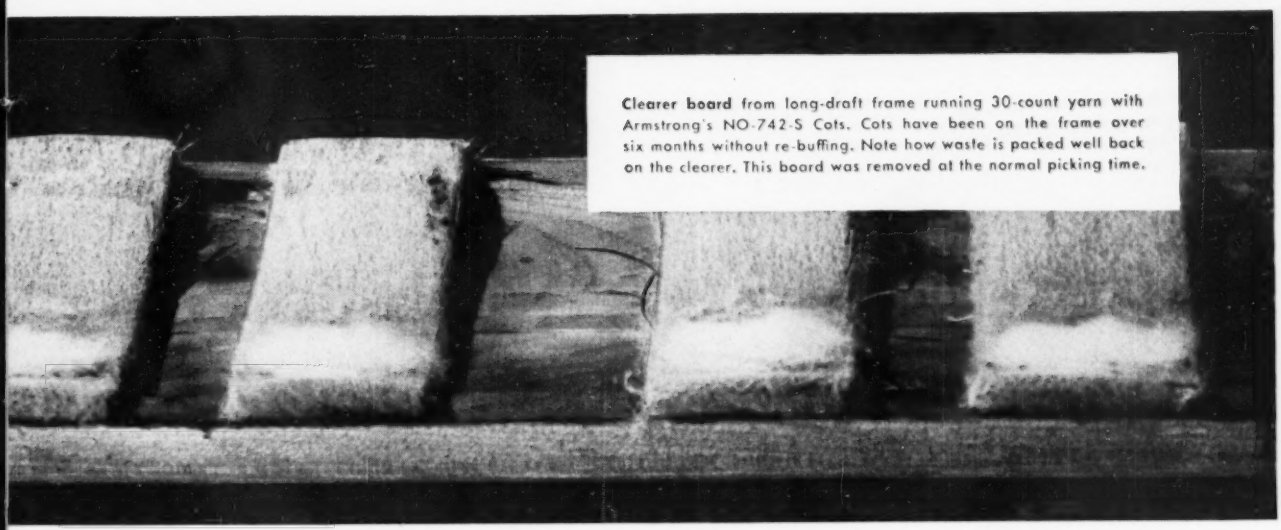
Write now for new folder showing complete C-D-F receptacles line!

ALL PRODUCTS OF
Continental-Diamond Fibre Company
NEWARK 11, DELAWARE

. . . with Textile Headquarters at 834 Haynes Street, Spartanburg, South Carolina. Call Spartanburg 3-6397 for DILECTO and DIAMOND FIBRE materials handling equipment . . . trucks, boxes . . . loom parts . . . top-speed shipments of CELORON silent gear blanks . . . friendly service from your C-D-F sales engineer.

MORE THAN EIGHT MONTHS AFTER RE-BUFFING, you can still see the "teeth" of Armstrong's NO-742-S Accotex Cot. The "bite" of this unique drafting surface carries loose fibers far back on the clearer, where there's no chance of their falling off and causing yarn irregularities or broken ends.

ARMSTRONG'S



Clearer board from long-draft frame running 30-count yarn with Armstrong's NO-742-S Cots. Cots have been on the frame over six months without re-buffing. Note how waste is packed well back on the clearer. This board was removed at the normal picking time.

See how this NO-742-S Cot stops eyebrows before they start

The clearer board above shows you how effectively Armstrong's NO-742-S Cots eliminate even the most serious eyebrowing. The thousands of tiny "teeth" on the spinning surface of this lap-resistant Accotex® cot pack waste fibers well back on the clearer.

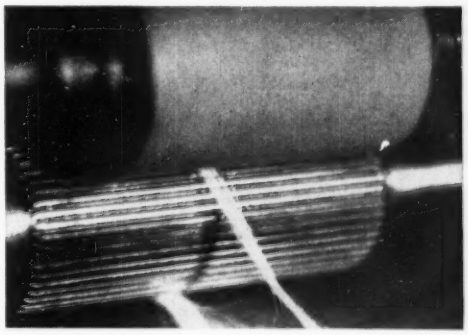
Mill men who have tested and used NO-742-S cots are enthusiastic about them. Says one supervisor, "When all the other cots show eyebrows, these new ones don't." Another supervisor puts it even more strongly. "With normal picking schedules, we've *never* had an eyebrow since we've been using NO-742-S Cots."

Only one re-buffing per year.

A third mill man likes the clean operation and long life of the NO-742-S. "Your NO-742-S Cot," he reports, "runs exceptionally clean without slicking or glazing. As a matter of fact, I only have to re-buff them once a year."

If you've been seeing too many eyebrows on your clearer boards, this is the cot you need. The NO-742-S has stopped eyebrowing on all kinds of spinning equipment and on every type and count of yarn tested.

Your Armstrong man will be glad to help arrange a test of NO-742-S cots on your frames. Call him or write direct to Armstrong Cork Company, Textile Products Department, 6502 Ivy Street, Lancaster, Pa.



WITH REVOLVING CLEARERS, USE THE LAP-RESISTANT J-490 COT

For spinning fine yarn, and for any count yarn with revolving clearers, Armstrong's J-490 Accotex Cots have proved ideal on thousands of frames. Special electrolytes added to the J-490's long-wearing synthetic rubber composition make it highly resistant to lapping. The J-490 runs exceptionally clean, too—it's not affected by oil, dyes, or commonly used textile solvents. If lapping is a problem, call your Armstrong man today and arrange for a test side of these lap-resistant J-490 Accotex Cots.

ACCOTEX COTS — NO-742-S • J-490 • NC-727

CONSTANT TENSION FEED from a roll -

A New Tower Scray *can* provide you with a continuous, uniform tension take-off at the entrance of processing ranges that feed from a roll. Your goods will fold into a ribbon candy plait that allows tangle free feeding with a minimum of tension. A Tower Scray handles up to 800 yards of cloth allowing ample time for sewing ends together without interruption of your high speed range operation.

A Tower Scray is extremely versatile — it's easy for one man to load and change rolls and to move the scray from one range to another. It can handle fabrics in a variety of weights and widths, and at speeds readily adjustable by means of the variable speed driving motor.

Contact Tower — our representatives will consult with you at your convenience and without obligation.

TOWER IRON WORKS

50 BORDEN STREET, PROVIDENCE 3, RHODE ISLAND

TEXTILE DIVISION

Sales Representative
L. C. STOWELL
Engineering Company
Charlotte, North Carolina

Personal NOTES ABOUT MEN YOU KNOW

Gordon Loeb, formerly chemist for Rockland Bleach and Dye Works, is now in the technical department of Aldon Rug Mills, Lenni, Pa.

George L. Baxter was recently elected vice-president for the Middle-Atlantic region of the American Association of Textile Chemists and Colorists. Mr. Baxter is associated with the Bradford Dyeing Association.

Frank L. Bradley, plant engineer, Forstmann Woolen Co., Passaic, N. J., was made a director-at-large for the

Mr. Bradley

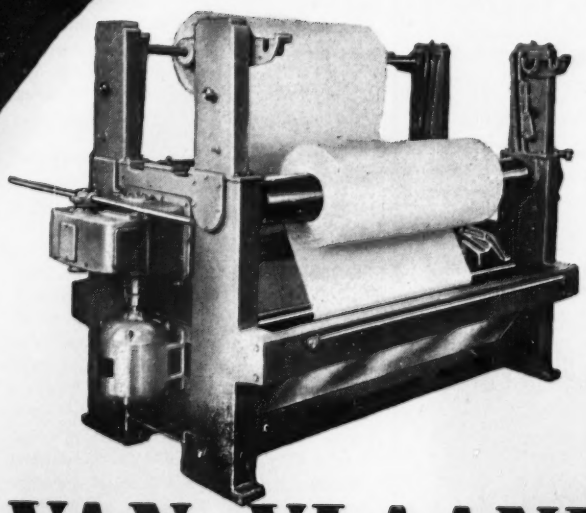
American Society of Mechanical Engineers for 1954. **L. A. Runton,** Alexander Smith, Inc., was elected chairman of the Textile Engineering Division.

Richard G. Kendall, assistant personnel director for the Bates Manufacturing Co., has been named to the Maine Personnel Board by Governor Cross.

Mills M. Tuttle, Jr., succeeds William McKinney, resigned, as manager of the Carolina Mills of The American Thread Co., Clover, S. C. He is replaced as superintendent of the Newnan, Ga., mill by **George L. Hodges,** formerly carding overseer. **Lorenz N. Gregg,** chief quality control engineer of the Tallapoosa Mill, has taken over the duties of carding overseer at Newnan.

The American Woolen Co. has announced the promotion of **Christian A. Wiessner,** resident manager of the Wood Mill at Lawrence, Mass., to division manager of all woolen and

IT'S FUTURE IS IN YOUR HANDS



NOW-A-DAYS it takes extra know-how to give the fabrics you process a bright future. What are they made of — rayon, acetate, one of the synthetics or a blend of two or more of these modern fibers? How will they dye? How best bring out the desired finish?

For fifty years Van Vlaanderen has worked in close cooperation with the Dyeing and Finishing Industry. Through the foresight and design ability of its engineers, Van Vlaanderen equipment has become today's choice for processing modern fabrics.

The Van Vlaanderen Number 888 Dye Jig shown is a unit of advanced design, built ruggedly and with precision for quality service today and in the years to come. Why not see it at work. Write, phone or telegraph.

VAN VLAANDEREN MACHINE COMPANY

370 Straight Street, • Paterson 3, New Jersey

Cable address: Vlaanderen, Patersonnj, U.S.A.

In the South – Parrott and Ballentine • 610 South Carolina National Bank Building • Greenville, South Carolina
In Canada – Fawcett and Company • 34 High Park Boulevard • Toronto, Canada

WORLD'S LARGEST MANUFACTURER OF MACHINES FOR PROCESSING MODERN FABRICS

Personal NOTES ABOUT MEN YOU KNOW

worsted production of the company's mills. **Lester E. Parkhurst** has become resident manager of the Webster (Mass.) Mills, succeeding **Herbert Smith,** now at Charlottesville, Va. Previously worsted divisional manager of American Woolen, **Ernest A. Eckert** is now resident manager of the Puritan Mills, Plymouth, Mass. **Russell H. Harris,** head wool buyer, has retired after 34 years with the firm. **Peter Caspar** is now overseer of picking at the Beaver Brook Mills, Collinsville, Mass.

Thomas McCance, a partner of Brown Brothers Harriman & Co., has been elected to the board of directors of Sidney Blumenthal & Co., Inc.

Seabury Stanton, president of Hathaway Manufacturing Co. and newly-elected president of the Associated Industries of Massachusetts, was recently honored at a testimonial dinner attended by more than 300 in New Bedford, Mass.

Herman D. Ruhm, Jr., president and a director of Bates Manufacturing Co., Lewiston, Me., has been named chairman of the board. He succeeds the late Robert Braun. Newly elected to the board is **W. Frank Lowell** of Boston.

D. H. Tyson, previously with Sylvania Electric Products, has joined Botany Mills, Inc., Passaic, N. J., as assistant treasurer and controller.

Recent promotions at Burlington Mills Corp. are: **Charlie Robertson,** M & S engineer at Smithfield; **James Rees,** third shift weave supervisor at South Hill, formerly loom fixer; at Cramerton **Frank Glover** was promoted to head of the billing section in the division office and **Herman Smith,** formerly M & S engineer, now staff representative in that department; **Arthur Russell,** from knitter to fixer supervisor trainee at Randleman; **Paul W. Lambert,** from loom fixer to secondhand in the weave room at Cascade.

Eli R. Callaway, vice-president, has retired after thirty-four years of active association with Callaway Mills Co. Also retired is **Charles M. Geer,** assistant secretary and sales manager of the USEO division. **George O. Jones,** assistant vice-president and credit manager, is now head of the credit department. Succeeding Mr. Geer as sales manager is **J. T. Braswell, Jr.**

After thirty-two years of service, **Earl P. Mathewson** has retired from Collins and Aikman Corp., Bristol, R. I.

News from Cone Mills Corp.: Newly elected assistant vice-presidents are **Edwin M. Holt, William H. White, Marshall J. Gardner,** and **Percy C. Gregory. Edward Connelly** is now assistant comptroller. **Thomas Cousins** has retired as general manager of the Dwight division, Alabama City, Ala. **Harold O. Carpenter, Jr.,** has been made assistant superintendent of the Pineville plant, and **Robert Crews** is now personnel assistant there.

William J. Boler is now manager of Windsor Print Works, a division of Consolidated Textile Co., North Adams, Mass. He was previously with Southbridge (Mass.) Finishing Co., now closed.

J. A. Dixon has been made assistant

NON-FLUID OIL
TRADE MARK REGISTERED

FOR PERFECT CARDING AND EVEN SLIVER

When the Doffer and Top Flats are out of adjustment because of worn bearings, uneven, troublesome sliver will come from your card room. Ordinary oil or thin grease is simply unable to stay in bearings constantly to prevent wear and maintain an accurate and close adjustment.

Drip-proof, spatter-proof, leak-proof NON-FLUID OIL lasts 3 to 5 times longer than ordinary liquid oils or grease substitutes. Its highly adhesive quality makes NON-FLUID OIL stay where it belongs—*in* bearings— not *on* the card clothing. It is *all* lubricant, and it lubricates *all* the way, until entirely consumed. Heat and wear in bearings—always costly—are avoided when you insist on NON-FLUID OIL.

We are prepared to provide mills with skilled lubrication service.

Send for testing sample of on-the-job NON-FLUID OIL plus helpful Bulletin T5-TB.

NEW YORK & NEW JERSEY LUBRICANT COMPANY
292 MADISON AVE. NEW YORK 17, N. Y.
WORKS, NEWARK, N. J.

Southern District Manager: Lewis W. Thomason, Jr. Charlotte, N. C.

WAREHOUSES
Birmingham, Ala. Greenville, S. C.
Atlanta, Ga. Chicago, Ill.
Columbus, Ga. Springfield, Mass.
Charlotte, N. C. Detroit, Mich.
Greensboro, N. C. St. Louis, Mo.
Providence, R. I.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture.

. . . and Instruments are Known by the Companies that Keep them

You can profit by the experience of hundreds of the leading textile mills (the names of a few of which appear here) by using G-R stroboscopic equipment. Reducing cost of production, improving the quality of output, and having fewer "seconds" are some of the important money-saving benefits obtained daily with the STROBOTAC®. Universally adaptable to cotton, woolen and synthetic mill use, a few of the many applications include:

In the Spinning Room: keeping spindles at correct speed; checking slack or dirty bands or tapes, spindles that need oiling, crooked idlers; chokes in idlers, under spindles, on bolster, on spindle clutch, in bobbins; spindles out of plumb or crocked or worn; crooked bobbins or bobbins that fit spindles inaccurately

Training Operators: observing in s-l-o-w motion the exact operation of all types of machines to train operators to adjust for best results, and to shoot trouble with a minimum of lost time

Ring Travellers: checking for misalignment and worn travellers and observing traveller action

Type 631-BL STROBOTAC®
$158

Direct-Reading Calibration: 600 to 14,400 rpm
'Stop' or s-l-o-w motion range: 60 to 100,000 rpm
Operates from any 115-volt 60-cycle a-c line
For complete details on all types of G-R Stroboscopes
Write for the NEW STROBOSCOPE BULLETIN

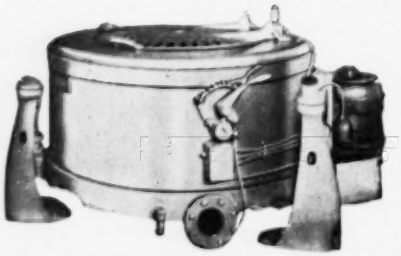
GR

GENERAL RADIO Company

275 Massachusetts Avenue, Cambridge 39, Massachusetts, U.S.A.

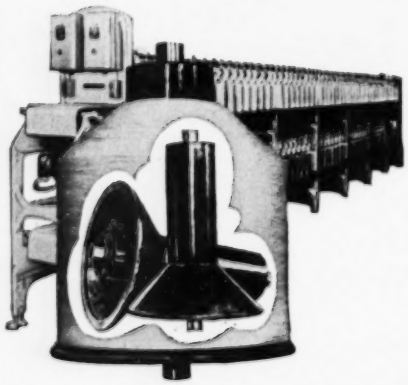
EVERY *Fletcher* MACHINE IS TOPS IN ITS FIELD

"WHIRLWIND" EXTRACTOR



The glass-smooth interior of the Fletcher "Whirlwind" extractor makes this versatile machine completely safe for all fabrics. Numerous outstanding operating features include: automatic hydraulic brake and timer; oversize motor to prevent overheating even under large loads; super-self balancing for safe operation. Several sizes available to fit all needs. Write for descriptive literature.

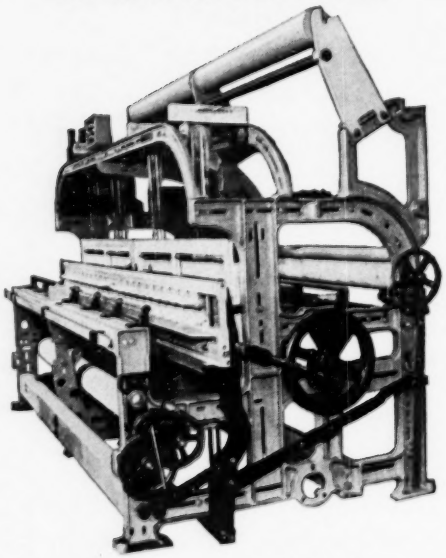
FLETCHER "KING SPOOL" TWISTER



Incorporating a completely new take-up package for overend delivery, without allowing the yarn to slough off, the "King-Spool" Twister is ideal for a wide variety of yarns, including low twist voile yarns and nylon, as well as high twist single and crepe, cable crepe, and combination yarn. The "King-Spool" features a fast traverse, eliminating overlaps and underwinds. It provides for a tail used in magazining.

For over a hundred years, Fletcher Works has been producing top quality machines for the textile industry. The "know-how" and experience which Fletcher has acquired during this period can provide valuable assistance to you. Why not call in a Fletcher engineer who will be glad to go over your particular problems and suggest ways in which they may be overcome . . . There's no obligation, of course.

NARROW FABRIC LOOMS



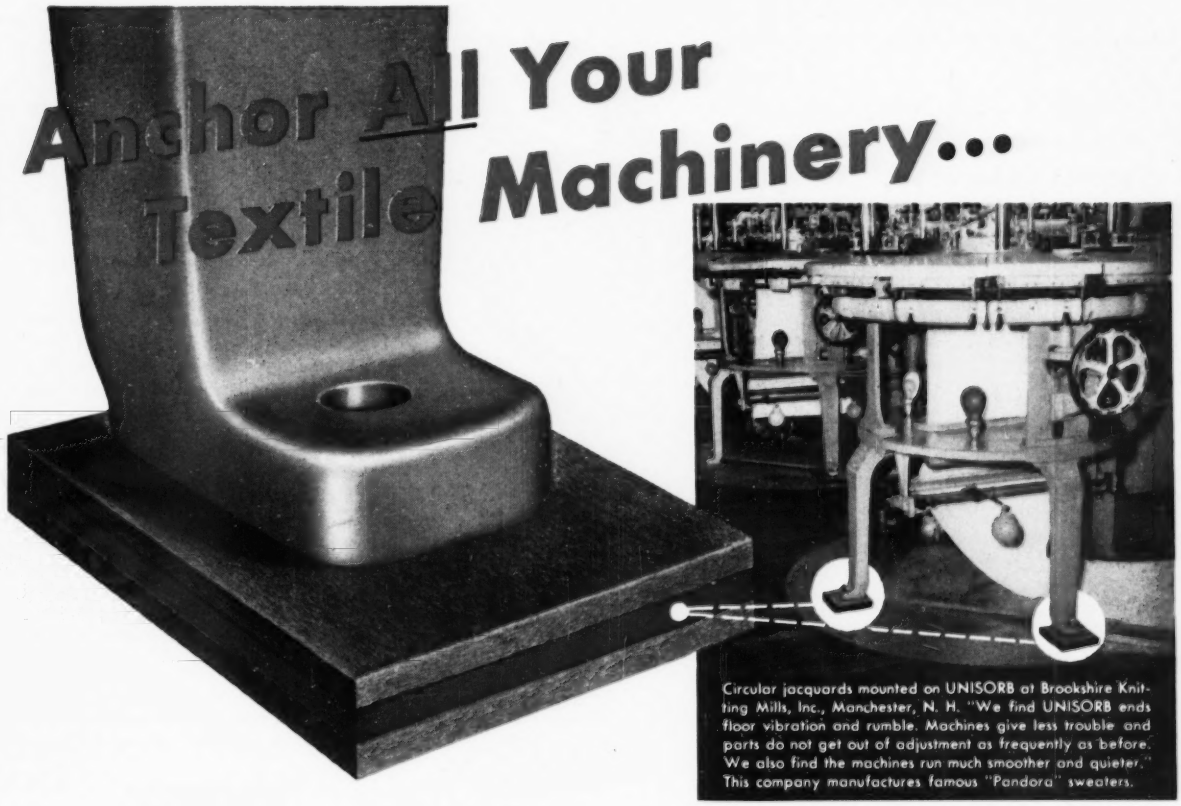
This semi-automatic, narrow fabric loom, one of Fletcher's latest developments provides for maximum production of top quality tape and ribbon. Its rugged construction permits it to operate safely at high speeds—an extremely versatile unit. For further information, request Bulletin 73.

TEXTILE MACHINERY EXHIBITION — ATLANTIC CITY, APRIL 26-30, 1954 — AMERICAN ASSOCIATION

FLETCHER WORKS

225 GLENWOOD AVE. PHILADELPHIA 40, PA. ESTABLISHED 1850

Anchor All Your Textile Machinery...



Circular jacquards mounted on UNISORB at Brookshire Knitting Mills, Inc., Manchester, N. H. "We find UNISORB ends floor vibration and rumble. Machines give less trouble and parts do not get out of adjustment as frequently as before. We also find the machines run much smoother and quieter." This company manufactures famous "Pandora" sweaters.

on UNISORB®

...and eliminate 60-85% transmitted vibration and noise!

When you mount machinery the modern way . . . on UNISORB . . . you do away with up to 85% of all transmitted machine vibration and noise.

This helps prolong the life of machinery, protect building and floors. Frequently, the sharp decrease in vibration permits maximum machine speeds with corresponding increase in production . . . fewer "seconds". Lowering of noise is generally always accompanied by better worker morale . . . less fatigue and fewer errors.

What's more, with UNISORB mounting you can say a happy "good bye" to old-fashioned bolt-and-lag-screw methods, and to costly, destructive floor drilling. A special cement (we supply it) firmly bonds the UNISORB pads to machine feet and floor with a holding strength of 90 pounds per square inch minimum . . . positively prevents "riding".

Ask for reprint of article "How Brookshire Knitting Mills Met the Vibration Problem."

LOOK FOR THE RED CENTER AND UNISORB BRAND MARK

THE FELTERS COMPANY

251 SOUTH STREET, BOSTON 11, MASSACHUSETTS

Offices: New York, Philadelphia, Chicago, Detroit, St. Louis
Sales Representative: San Francisco
Southern Representative: Industrial Supply Co., Clinton, S. C.
Southwest Representative: Textile Supply Co., Dallas, Texas
Mills: Johnson City, New York; Millbury, Mass.; Jackson, Mich.; New York City

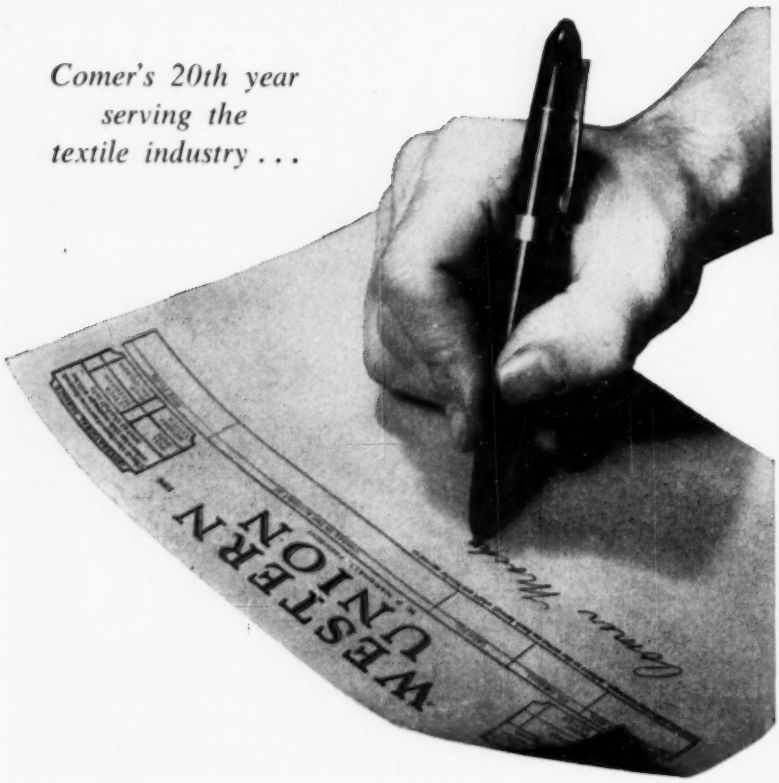
Send For Free Booklet Today!

THE FELTERS COMPANY
232 South Street, Boston 11, Mass.

Gentlemen:
Please send my FREE COPY of "Why It Pays To Anchor Your Textile Machinery with UNISORB."

NAME ..... TITLE .....
COMPANY .....
STREET .....
CITY ..... STATE .....

Comer's 20th year serving the textile industry . . .



Got a textile machinery problem?

WIRE COMER!

Concerned with finding a market for machinery? Wondering where you can buy the machinery you need? Wire or call Comer Machinery Company for fast action!

FOR 20 YEARS . . . contacts throughout the textile industry (here and abroad) have enabled Comer Machinery Company to serve as a sure-fire market place for *both* buyer and seller. Whether you need action today, or in the future, contact the Comer Machinery Company now for gratifying results. Cable address: COMACH.

A single machine, or complete mill properties bought and sold. Liquidations. Appraisals.

COMER MACHINERY

COMER
Machinery Company

308 Ivy Street, N.E.
Atlanta, Georgia

Bulletin describes machinery currently available. Phone or write to be put on the mailing list.

Personal NOTES ABOUT MEN YOU KNOW

general manager of Courtaulds (Canada) Ltd., Montreal, Quebec. Succeeding him as assistant to the president is **Jack Morris,** formerly head of the engineering division at Cornwall, Ont.

Linwood J. Groder has been named to the newly created position of head of fabric development and designing of all women's wool and wool-blend fabrics at Deering, Milliken Co., Inc.

The Durene Association has elected as its new president **W. H. McDonald** of Southern Mercerizing Co., Tryon, N. C. **Freeman R. Harris,** vice-president of Standard-Coosa-Thatcher Co., Chattanooga, Tenn., was elected vice-president; and **Joseph P. Holt,** president of Aberfoyle Manufacturing Co., Philadelphia, was re-elected treasurer.

P. W. Beggs has replaced E. A. Powell, deceased, as superintendent of the Rockmart, Ga., plant of Good-

Mr. Beggs

year Tire & Rubber Co. He was previously with the firm's synthetic fiber unit at Cartersville, Ga.

Marcus A. Deane has left Corriedale Mills, Mossup, Conn., to become superintendent at Empire Woolen Mills, Woonsocket, R. I.

C. O'Neal Walker, former superintendent, has been named to succeed M. R. Harden as manager of Erwin Mills, Inc., Plant 8, Stonewall, Miss. **Fred M. McDonald** has replaced L. E. Gatlin, Jr., as superintendent and manager of Erwin Mills' Neuse, N. C., plant.

Francis E. Mayo has been promoted from loom fixer to second-hand of weaving at Grosvenor-Dale (Conn.) Co.

Hess, Goldsmith & Co., Inc., has appointed **Emil W. Bauman** to take charge of the newly acquired weaving plant at Taylor, Pa. Mr. Bauman

"Best Doggone Incentive System Yet"

The good old American incentive system can't be beat.

Here at SEYCO our incentive is not only $$$$, but also pride in our work, and in our reputation for producing the best.

We've found that in keeping up the good SEYCO Quality, the reward comes naturally.

HEADQUARTERS FOR TEXTILE CHEMICALS

SEYCO Products

WARP SIZING

- Softeners
- Binders
- Penetrants
- Ty-In Penetrants
- Shuttle Dressing

WET PROCESSING CHEMICALS AND AUXILIARIES

- Dye Assistants
- Penetrants
- Rewetting Agents
- Sanforized Fabric Oils
- Detergents
- Scouring Agents
- Softeners

NIAGARA TWIST-SETTER

Yarn Conditioning Penetrants

SEYDEL-WOOLLEY & CO.

TEXTILE CHEMICALS

748 RICE STREET • ATLANTA, GA.

SEYCO

PENETRANTS • SIZING • SHUTTLE DRESSING • SOFTENERS • ALKALIS
• TWIST SETTER MACHINES •

REPUTATION
IS MIGHTY IMPORTANT . . .

When Selecting An All-American Halfback and When Selecting An Electrical Contractor For Your Mill

You've got to have a reputation in order to make All-American . . . and you've got to be a good football player to come by such a reputation.

The same thing is true as far as electrical contracting goes. A firm which has done a good job over the years will automatically enjoy a good reputation.

Wherever quality textile electrical contracting is being discussed, J. M. CLAYTON COMPANY will be mentioned. Reason?

We've served the textile field for 48 YEARS!

J. M. CLAYTON CO.

CONTRACTING ELECTRICAL ENGINEERS

ATLANTA, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

was general superintendent of the firm's Pennsylvania Avenue weaving plant. **W. J. Berg** has been named technical director and **John Churry,** production manager, at the latter plant.

Harold W. Whitcomb was recently elected president and a director of Fieldcrest Mills, Inc. He succeeds Milton C. Mumford, who resigned to return to Marshall Field & Co. as vice-president and an executive officer.

The Georgia Tech Alumni Foundation has elected **Walter M. Mitchell** president and **John P. Baum** vice-president. Mr. Mitchell is vice-president and a director of the Draper Corp., and Mr. Baum, of Milledgeville, Ga., is vice-president and a director of J. P. Stevens and Co.

Clifford Fox, previously with the Office of Price Stabilization in Washington, D. C., is now general manager of Kanmak Mills, Inc., and Kulpmont Manufacturing Co., Kulpmont, Pa.

Mr. Fox

Newly elected vice-president of F. C. Huyck & Sons, Rensselaer, N. Y., is **Earl D. Rhodes. Wilhelm Moe,** assistant superintendent of Kenwood Mills Limited, Canadian subsidiary, since 1943, has been made general superintendent of the Rensselaer plant.

Previously dyer at the Lewiston (Me.) Bleachery, **Robert Cameron** is now boss dyer at Indian Head Mills, Nashua, N. H.

Charles Heitert was appointed factory superintendent of the new Seneca, S. C., plant of Jantzen Knitting Mills, Inc.

John K. Patterson Odell, has been appointed to fill the unexpired term of his father, the late Arthur Odell,

When Cotton Was a Smuggler's Prize...

Few Realized It Would One Day Be a Staple Fabric of Nations!

Outlawed because manufacturers of silks, velvets and tapestries declared the popular new fabric would ruin them—for nearly 100 years cotton cloth was prohibited in France. Yet the fashion-conscious French women defied laws and danger to wear the precious contraband.

Often their cotton frocks were ripped from them in the streets as government agents tried in vain to enforce the Edict of 1686. Fines, penalties and violence could not stem the demand for the new printed and dyed cottons, however. Secret warehouses were set up; and cotton became the highly prized cargo of smugglers. Finally, authorities bowed to the inevitable, and in 1759 the restrictions on cotton were removed.

Today cotton textiles are a taken-for-granted part of our everyday living. The tremendous advances in production methods plus intelligent merchandising methods have made them generally available for all. Among the important contributions to modern cotton textile manufacture are Staley's sizing and finishing starches.

Staley's starches have proved their superiority in many of the nation's leading textile mills. For information write today.

Staley's Sizing and Finishing Starches for Every Purpose

PEARL STARCH • ECLIPSE®
STA-GEL® • STA-THIK® • DEXTRINS
STACLIPSE • CORN SYRUP

PRODUCTS FROM CORN
Staley's

THERE IS A SUPERIOR QUALITY STALEY STARCH FOR EVERY TEXTILE NEED

A. E. Staley Manufacturing Company, Decatur, Illinois

These floors are 5 times brighter than before
LIGHT METER shows 60 foot candles reflected from dry-cleaned floor, 10 foot candles from scrubbed floor. (Name of customer on request.)

Because they're DRY CLEANED, with the *TENNANT* Floor Maintenance *System*

Measuring light-reflection with a meter, this mill superintendent finds that his Tennant *dry-cleaned* floors are 500% brighter than adjacent areas (which were scrubbed). In addition dangerous slip-hazards have been decreased, rough spongy surfaces eliminated and average cleaning *time* per square foot has been cut by about 80%.

Safe Working Conditions Boost Employee Morale!

Dark, slippery, oil-soaked floors absorb light, cause accidents and lower morale. But with the Tennant System *your floors can quickly be reconditioned* and made clean, dry and bright —real assets to your mill's production.

- ***Restores.*** Removes dark, soft topwood fibers; leaves sound, vigorous surface.
- ***Hardens.*** Seal fills, binds, hardens floor. Makes it bright, durable.
- ***Dry Cleans.*** Eliminates scrubbing! Keeps floors clean, smooth, bright. Fast, convenient, economical.

WRITE FOR BULLETIN

G. H. TENNANT CO.
2524 N. 2nd Street
MINNEAPOLIS 11, MINNESOTA

Tennant Floor Machines are available for 8", 12" and 16" drum accessories.

The way to finer floors
ELIMINATE TENNANT SCRUBBING
Floor Maintenance System

Personal NOTES ABOUT MEN YOU KNOW

as president and treasurer of Kerr Bleaching & Finishing Works, Inc., Concord, N. C. He is the fourth generation associated with the bleachery.

Jaap A. Vandenbergh has resigned after six years' affiliation with Knightsbridge Mills, Lawrence, Mass. He was the originator of the first process to stabilize and shrinkproof knit goods, called "Kabilized."

Archie O. Joslin has resigned as president of M. Lowenstein & Sons, Inc., for reasons of health. Succeeding him is **Donald B. Tansill,** previously executive vice-president.

Graden D. Causey recently resigned as superintendent of C. H. Masland and Sons' Carlisle, Pa., mill.

Joseph E. Duval and **Nathaniel E. Duval** have resigned from the Massachusetts Mohair Plush Co. Their former positions of president and vice-president, respectively, have been assumed by **Ernest Horvath** and **Dan H. Edmonson.**

Frank Maria, personnel and public relations director, Merrimack Manufacturing Co., Lowell, Mass., is chairman of the newly formed Lowell Boston University Alumni Club.

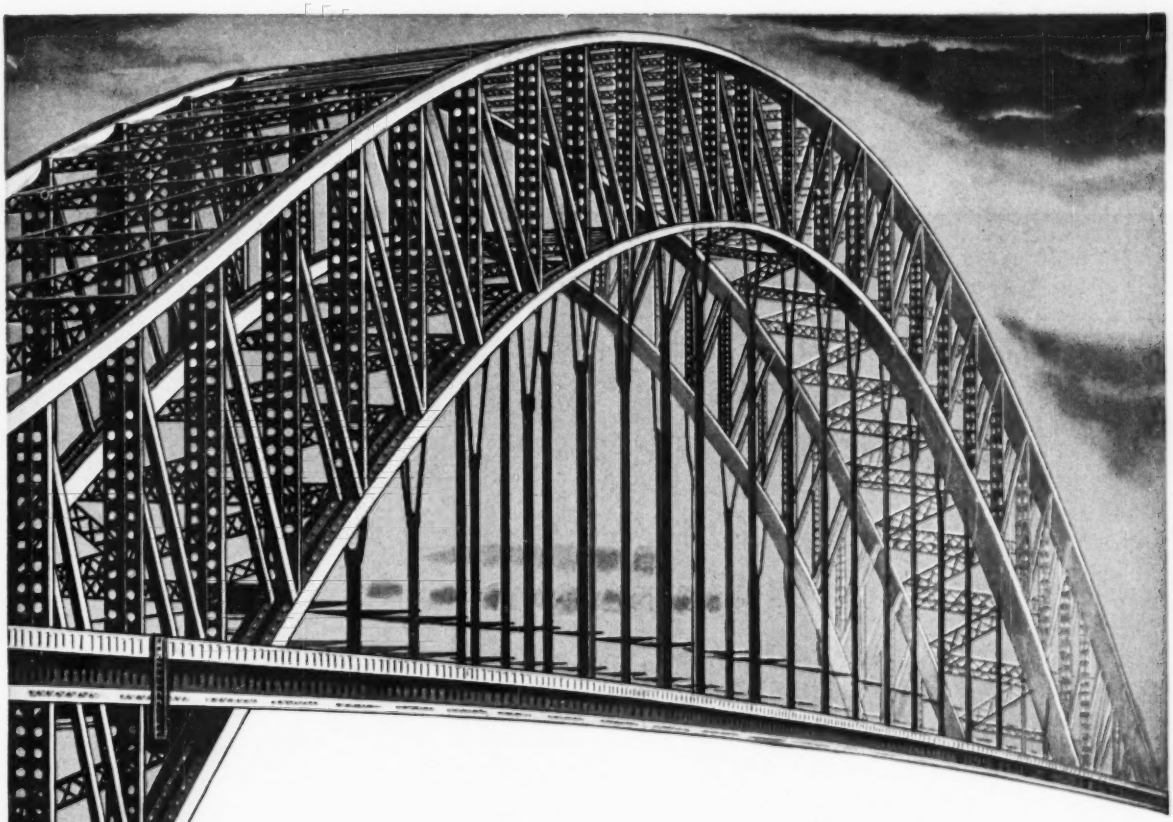
J. Howard Anderson, for 19 years with the Barbour Thread Mill, has

Mr. Anderson

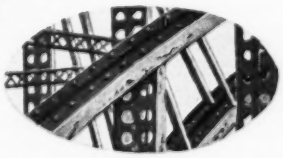
been appointed general manufacturing manager of all the manufacturing units of The Linen Thread Co., Inc., Paterson, N. J.

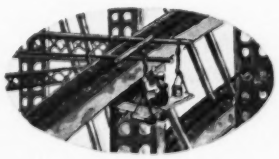
Upon completion of 44 years of active service, **Alfred H. Thatcher** has retired as treasurer of Standard-Coosa-Thatcher Co., Chattanooga, Tenn. He is succeeded in that position by **Emil S. Davis. D. Brooks Barlow,** assistant treasurer, is now also secretary.

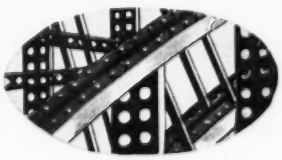
Robert J. Dinan, previously assistant superintendent of M. T. Stev-



Preparation for a trouble-free finish...







WHAT HAS A BRIDGE TO DO WITH TEXTILES, you ask?

Well . . . for one thing they both need *preparation for a fine finish:* the bridge needs its vital rust-resisting prime coat of red lead prior to the finish coats; and textiles need the vital de-sizing operation prior to bleaching and dyeing.

Which brings us—naturally—to Diastafor de-sizing agent.

Diastafor *works.* It works in an unusually wide range of temperatures and pH, a range which will satisfy your every enzyme de-sizing requirement. And more—you will discover it works with ease, speed and economy.

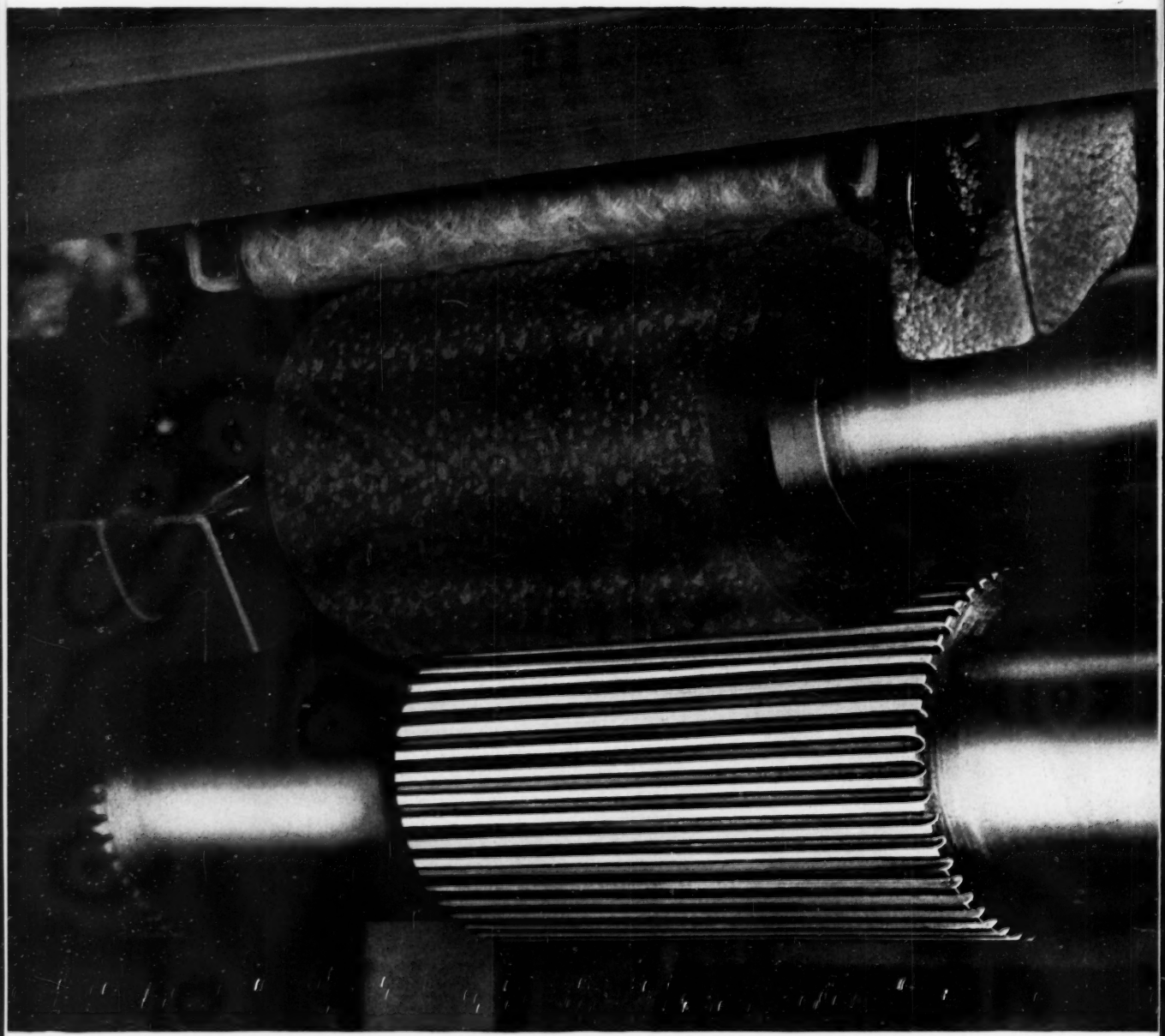
No matter under what conditions you may be working—with various lots . . . with variations in water and sizing formulas . . . with cottons, rayons or mixed goods—Diastafor, available in types L, L_2 and D, will prove itself to you, in your own mill. Try it for either the continuous or batch process. Remember: it has been a leader in its field for 44 years!

Our sales and technical staffs are ready to save you time and trouble. For your own trouble-free finish, consult us. Standard Brands Incorporated, Diastafor Department, 595 Madison Avenue, New York 22, New York.

DIASTAFOR

A TRADE MARK OF STANDARD BRANDS INCORPORATED

FIND OUT BY



IBROCOL COTS ELIMINATE EYEBROWING PROBLEM

IBROCOL, newest discovery of Dayton's Textile Research Laboratory, gives Dayco Cots an almost human-like ability to select and pick up only the short staple fibres and tuck them well back on the clearer board. Long staple fibres are allowed to remain in the yarn, thus removing the major cause of eyebrowing.

Because of the chemical and mechanical action resulting from the addition of IBROCOL, just the right coefficient of friction is set up to completely control the eyebrowing problem. Dayco Cots on your equipment will also improve the quality of your yarn and give you valuable savings in time, material and reduction of waste. IBROCOL is another Dayton exclusive; no other cot on the market has this amazing ingredient. Contact your Dayco representative for complete details or mail the coupon on the opposite page today!

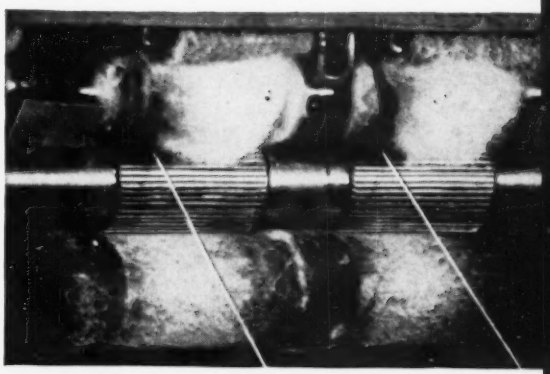
ACTUAL TEST

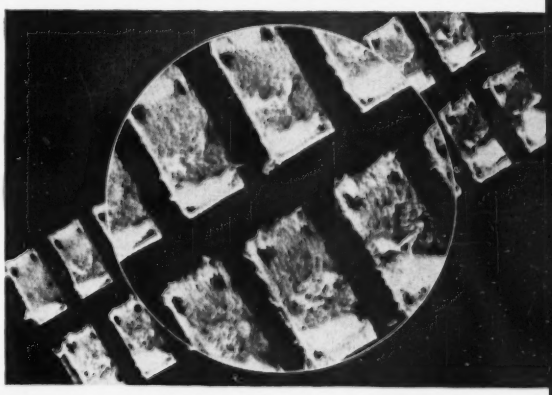
Discover These Cost Cutting Advantages

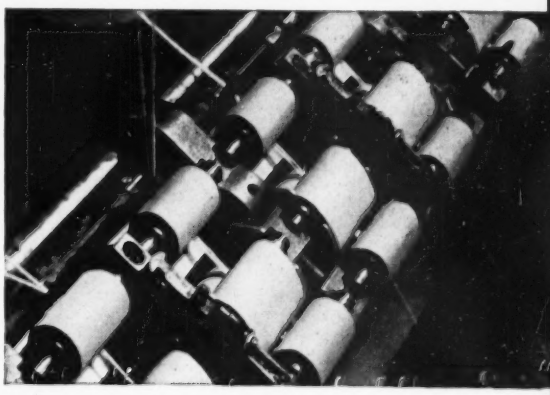
Test one frame of new Dayco Cots and you'll never go back to ordinary cots. Only Daycos have the new Ibrocol ingredient added that gives the surface just the right coefficient of friction to eliminate excessive eyebrowing.

The addition of Ibrocol retards slicking and glazing in the new Dayco Cot, thus fewer buffings are required. Also the clearer board needs cleaning less often because Dayco Cots pick up *only* the short staple fibres and transfer them well back under the clearer board, away from the eyebrowing position.

Note the difference in waste on the two clearer boards at the right. The top board, used with new Dayco Ibrocol Cots, shows much less waste and a minimum of eyebrowing. Here's actual proof of the ability of Dayco Cots to cut cost, save time and labor, wherever they are used.







Draft Higher Quality Yarn

Dayco Cots leave the long staple fibres in the yarn, create fewer lap-ups and ends down, reduce waste and completely control eyebrowing. Result: a superior quality yarn from every Dayco-equipped frame.

Dayco Cots guarantee better drafting on all types of frames using natural or synthetic fibres. So, for the finest quality yarn at lowest possible cost equip *your* frames with Dayco Cots. A test run will be all that's needed to convince you.

Make Your Own Money-Saving Test

Prove to yourself that Dayco IBROCOL Cots will save you time and labor, increase production and improve yarn quality. Test Dayco Cots right on the same frame with those you're using and make your own comparison. Clip and mail the coupon below to arrange a money-saving test.

Dayton Rubber

Since 1905

TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

Dayton Rubber Co., Textile Division, Woodside Bldg., Greenville, S. C.

(C) D.R. 1953

DAYTON RUBBER CO.
Dept. 362, Textile Division
Woodside Bldg., Greenville, S. C.

I'd like to know more about Dayco Ibrocol Cots —

- ☐ Send additional literature
- ☐ Arrange test run of Dayco Cots on my equipment

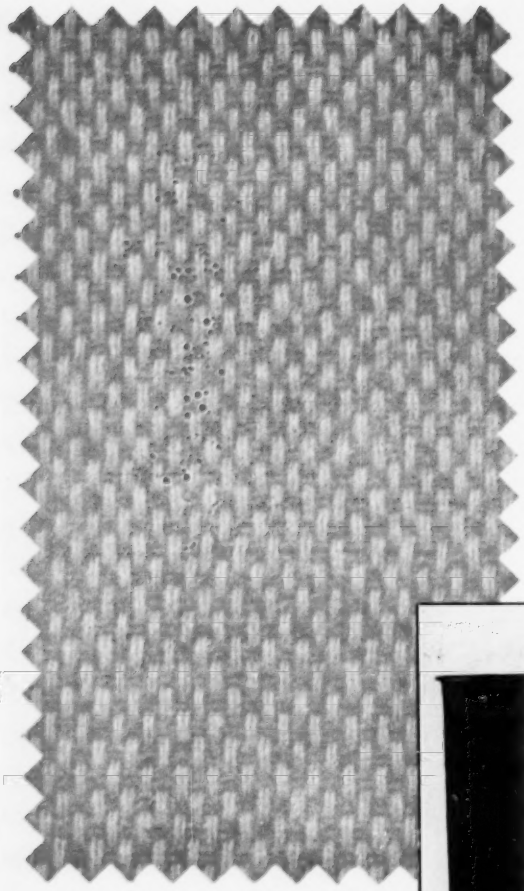
Name_____

Position_____

Firm_____

Address_____

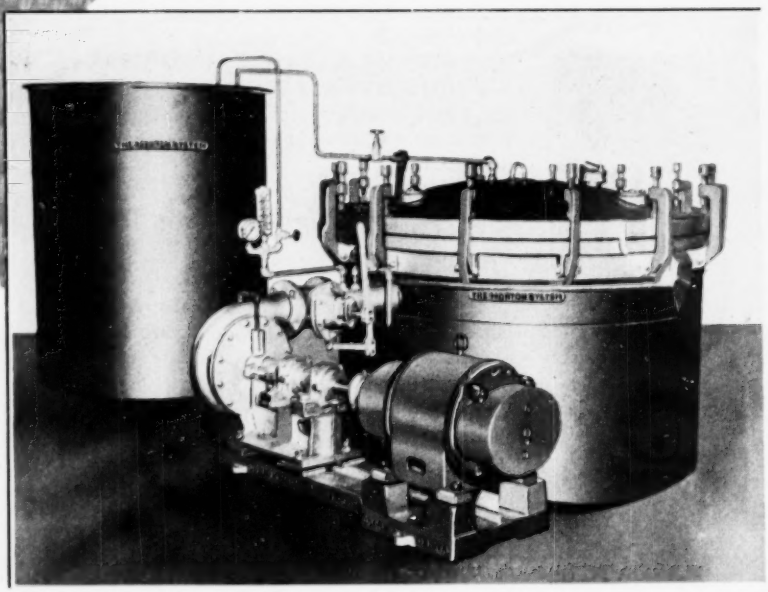
City_____ Zone____ State_____



MODERN MACHINERY IS A MUST...

In these days when the textile situation is so highly competitive, a dyehouse which allows obsolete machinery to increase production costs is apt to find itself on the red side of the profit margin. Today, as never before in the history of the industry, modernization of method and equipment is a *must!*

Morton System Dyeing Machinery is the ultimate in modern efficiency . . . and each year more patents are pending.



THE MORTON SYSTEM DOUBLE CIRCULATING STOCK DYEING MACHINE, shown above, has been developed for use at elevated temperatures.

Morton engineers have again led the way with this simple-to-operate, insurance-company-approved machine. Single batches of four and five thousand pounds are handled easily, as are any batches required by mill production. Constructed of Type 316-18-8 SMO Stainless Steel. Call your Morton Engineer for details today.

MORTON MACHINE WORKS, INC.

COLUMBUS, GEORGIA

PHILADELPHIA 38, PA.
General Textile Machinery Co.
1139-51 East Chelten Avenue

ATLANTA 3, GEORGIA
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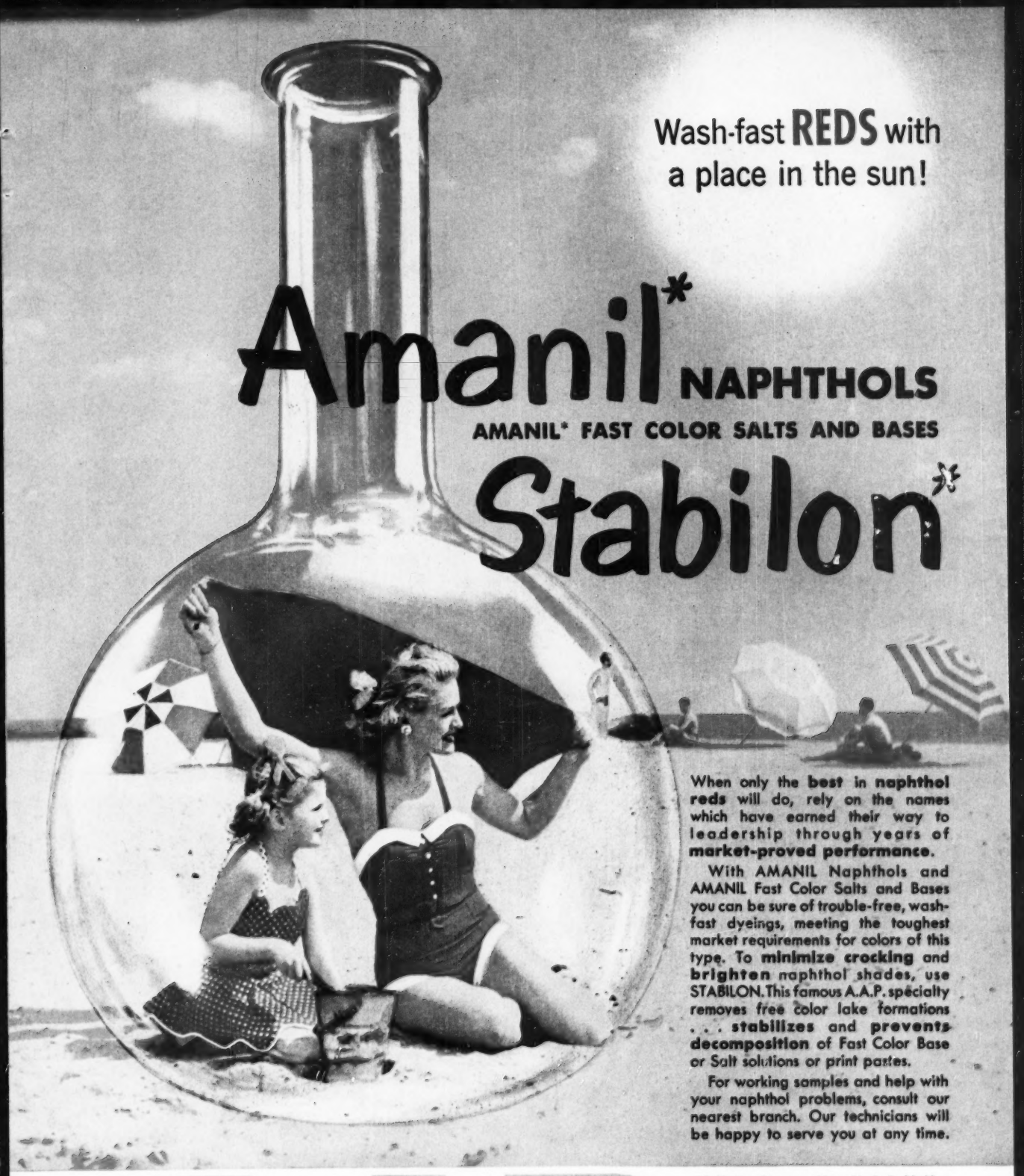

Wash-fast **REDS** with a place in the sun!

Amanil* NAPHTHOLS

AMANIL* FAST COLOR SALTS AND BASES

Stabilon*

When only the **best** in **naphthol reds** will do, rely on the names which have earned their way to leadership through years of **market-proved performance.**

With AMANIL Naphthols and AMANIL Fast Color Salts and Bases you can be sure of trouble-free, wash-fast dyeings, meeting the toughest market requirements for colors of this type. To **minimize crocking** and **brighten** naphthol shades, use STABILON. This famous A.A.P. specialty removes free color lake formations . . . **stabilizes** and **prevents decomposition** of Fast Color Base or Salt solutions or print pastes.

For working samples and help with your naphthol problems, consult our nearest branch. Our technicians will be happy to serve you at any time.

AAP

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Toronto, Canada • Montreal, Canada

*Reg. U. S. Pat. Off.

"If our executives did not read BUSINESS PUBLICATIONS I'd consider them unfit for their jobs"

Col. Willard F. Rockwell,
Chairman of the Board,
Rockwell Manufacturing Company

"We feel the same way about our sales managers," Colonel Rockwell continues. "We expect them to know what is being printed in the business publications and to guide themselves accordingly. Further, we ask our salesmen to keep our home office informed about the comments of our customers on business periodicals."

Like Colonel Rockwell, other business and professional leaders the country over are reading business publications covering their fields of activity. They are getting from these magazines vital information about new products, new methods, new marketing trends, price and distribution changes through the advertising as well as the editorial pages. The Business Press offers a direct route to anyone who has anything to sell to business and professional men.

NBP

For a United Business Press

NATIONAL BUSINESS PUBLICATIONS, INC.

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The national association of publishers of 161 technical, professional, scientific, industrial, merchandising and marketing magazines, having a combined circulation of 3,524,478 ...audited by either the Audit Bureau of Circulations or Controlled Circulation Audit, Inc.... serving and promoting the Business Press of America...bringing thousands of pages of specialized know-how and advertising to the men who make decisions in the businesses, industries, sciences and professions... pinpointing your audience in the market of your choice. Write for complete list of NBP publications.

Being Firm...!

Does Have Its Points!

The points when considering appropriate FRAME CONSTRUCTION built for the fabrics they were intended for, added up are;

1. STRENGTH AND RIGIDITY — To take any punishment high speed production inflicts.
2. LIGHTNESS IN WEIGHT — Provides ease of handling plus the strength required.
3. Constructed so that all wood parts are made from selected seasoned lumber free from knots; all metal parts being of rust resisting metal and designed for fool proof function of the frame.
4. Smooth face — no parts protruding — no rub, no cut.
5. Finger Tip controlled Heddle Bars of the finest tempered steel for quick release.

STEHEDCO FRAMES will always be the Frames for high speed production, because they were designed for it. There is a STEHEDCO FRAME constructed for the material you are weaving equipped with Stehedco patented Drawtex Heddles.

Consult your nearest Stehedco or Southern Field Engineer for the information you require.

Stehedco and Southern
WORLD FAMOUS TRADE MARKS OF THE
Steel Heddle
Mfg. Co.

STEEL HEDDLE MFG. CO.,
SOUTHERN SHUTTLES
STEEL HEDDLE COMPANY OF CANADA, LIMITED

1-0-2

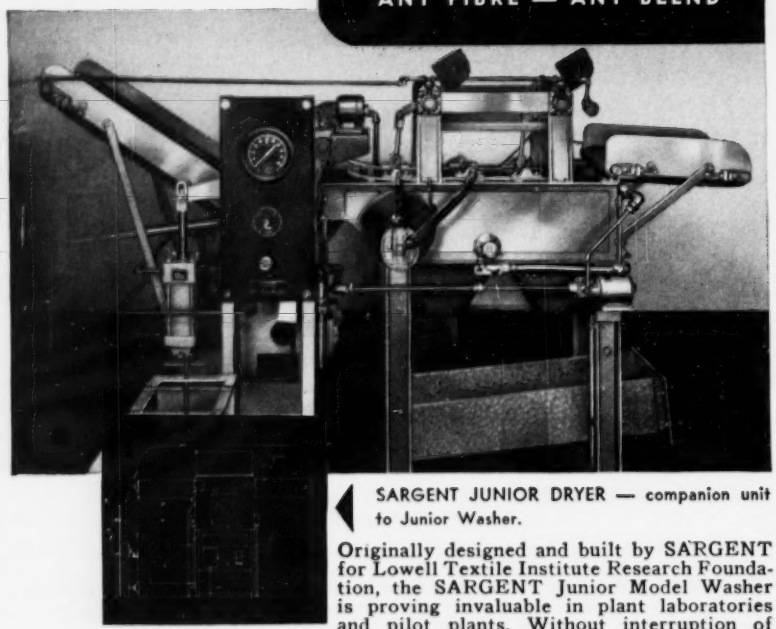
They're New...

SARGENT'S LABORATORY TWINS

A JUNIOR SIZE WASHER

and a Sample Dryer

ANY FIBRE — ANY BLEND



SARGENT JUNIOR DRYER — companion unit to Junior Washer.

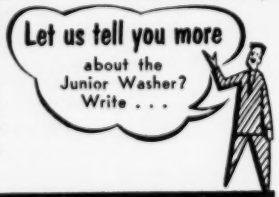
Originally designed and built by SARGENT for Lowell Textile Institute Research Foundation, the SARGENT Junior Model Washer is proving invaluable in plant laboratories and pilot plants. Without interruption of regular production work the Junior Washer will determine accurately the proper washer train process for most economical operation. The perfect room mate for SARGENT'S Junior Dryer.

Detergent concentration, alkali concentration, process timing . . . any and every possible combination of factors making for the one best way to scour, bleach, acidify, may be easily and accurately determined with this model.

Complete instrumentation for controlling and recording every step of the process is standard equipment, enabling process, once determined, to be transferred to regular production line without loss of time.

Stainless steel bowls 36" long, 10" wide — two 60° extra-steep hoppers to each bowl. Liquor capacity about 16 gallons.

Design and operation identical with standard size SARGENT Washers.



C. G. SARGENT'S SONS CORPORATION

Graniteville, SINCE 1852 Massachusetts

REPRESENTATIVES: F. E. WASSON, 519 Murdock Rd., Philadelphia 19, Pa.
A. L. MERRIFIELD, 215 Grove Ave., Cincinnati 15, Ohio
W. S. ANDERSON, Carolina Specialty Co., Charlotte, N. C.
HUGH WILLIAMS & CO., 47 Colborne St., Toronto 1, Canada

Personal NOTES ABOUT MEN YOU KNOW

ens & Co.'s Marland mills, is now superintendent of the firm's Tilton (N. H.) Mills. He replaces **John Sullivan,** transferred to Marland.

Burke M. McConnell, formerly with Farmac Mills, Inc., Rock Hill, S. C., and before that a vice-president of Burlington Mills Corp., has joined Textron Incorporated as vice-president. He succeeds F. A. Jenckes, who resigned as head of merchandising the company's spun blend fabrics.

Moss Rose Manufacturing Co., Philadelphia, Pa., recently surprised with a 50th anniversary luncheon **Berthold Strauss,** who started as shipping clerk and is now president of the firm. Mr. Strauss was presented an engraved scroll representing two scholarships which have been put into effect in his name at the Philadelphia Textile Institute.

Julius Bernhard has retired as vice-president after 46 years with Princeton Worsted Mills, Trenton, N. J. He is credited with many of the fabric developments and originations of Princeton during those years.

George R. Campbell, for the past six years in charge of throwing, tricot

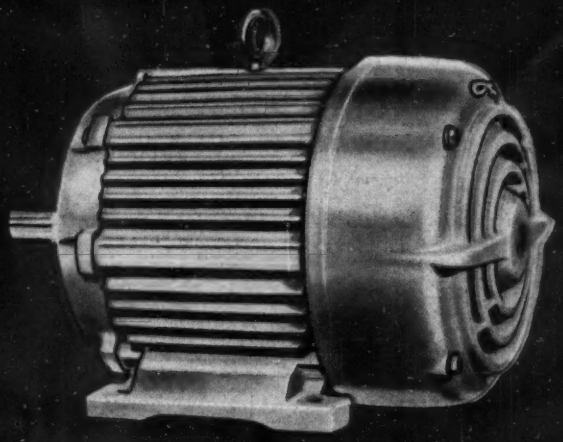
Mr. Campbell

knitting, and finishing at the M.K.M. Knitting Mills, Inc., is now general manager of the Triangle Finishing Corp., Johnstown, N. Y.

Succeeding **James Busher** as resident manager of Puritan Mills, Plymouth, Mass., is **Ernest Eckert.**

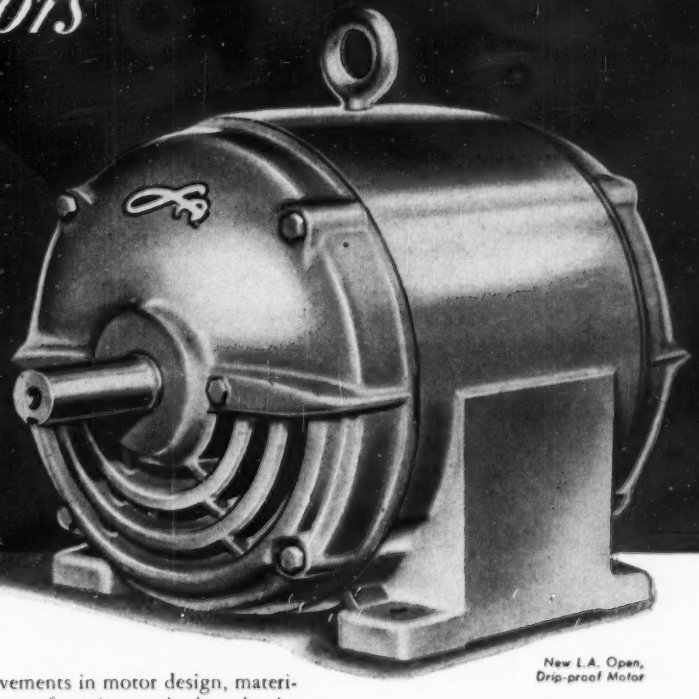
Richard N. Stone, vice-president, has been elected to the board of directors of Wamsutta Mills, New Bedford, Mass.

W. O. Jelleme has retired as assistant merchandise manager, textile division, United States Rubber Co. **Raymond A. All** is now manager of market research. New administrative



Here's new power for all standard and special motor applications

The Louis Allis Co. proudly presents the NEW L.A. *Line of electric motors*



Upper: New L.A. Fan-cooled and Explosion-proof Motor

New L.A. Open, Drip-proof Motor

Here is complete utilization of more than 50 years of motor engineering and development—the new L.A. line of electric motors. More than just a "face-lifting" to meet the new NEMA standards, these motors are entirely new through and through—with such features as new modern styling . . . improved ventilation . . . greater motor protection . . . new conduit box arrangement . . . new bearing construction . . . and more versatile mounting.

Improvements in motor design, materials, and manufacturing methods make the new L.A. line possible. These motors pack more power in a smaller, lighter, more functional package. Yet they sacrifice none of the high Louis Allis standards of performance and liberal design.

Get the facts on the most modern motors available—the new L.A. line. Call in your nearby Louis Allis Sales Engineer today for the complete story.

Special Note *Louis Allis motors in old NEMA standard frame sizes will still be available if you require them for interchangeability or replacement.*

THE LOUIS ALLIS CO. • MILWAUKEE 7, WISCONSIN

Flooring of Northern Hard Maple in Stinson Knitting Mills, Brooklyn, New York.
(Photo by courtesy Supreme Knitting Mach. Co., Inc.)

foot-friendly!

NORTHERN HARD MAPLE

The hard-headed common-sense of mill operators and mill designers is the big reason for the acres of "foot-friendly" Northern Hard Maple floor throughout the textile industry. For it's common-sense (and scientific studies back it up) that tells us a floor of warm, *resilient* maple is far less tiring to stand on and work on than a floor that's cold and stony-hard! Common-sense tells us a bright, tight, cheerful maple floor is easy to keep clean, easy to maintain . . . and, because "there's always a new floor underneath," it's easy to refinish. Common-sense tells us Northern Hard Maple creates no dust, catches no lint, resists dents, scuffs and splintering. Yes, Northern Hard Maple floors give you *real* savings—savings that continue through the years. Ask your architect or see Sweets' (Arch. 12 K-MA). Write for new Flooring Textbook.

savings continue through the years

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 591, Pure Oil Building, 35 East Wacker Drive • Chicago 1, Illinois

FLOOR WITH NORTHERN HARD MAPLE
BEECH AND BIRCH

Personal NOTES ABOUT MEN YOU KNOW

assistant to the merchandise manager is **Staton J. Peele,** whose former position of manager of sales and production coordination has been taken over by **John H. Jenkins.**

T. L. Eastman has left Vermont Textiles, Inc., North Montpelier, Vt., to become associated with Slingsby Manufacturing Co. Ltd., Brantford, Ontario.

W. T. Murphy has been promoted from overseer of the spinning department at Seminole Mills to assistant superintendent of the Buffalo, S. C., plant of Union-Buffalo Mills of United Merchants and Manufacturers, Inc. * * * At the Statesville, N. C., mill, **Isom J. McClelland** has been made third-shift overseer of the weave room. * * * **Luther E. Gatlin, Jr.,** previously at the Neuse, N. C.,

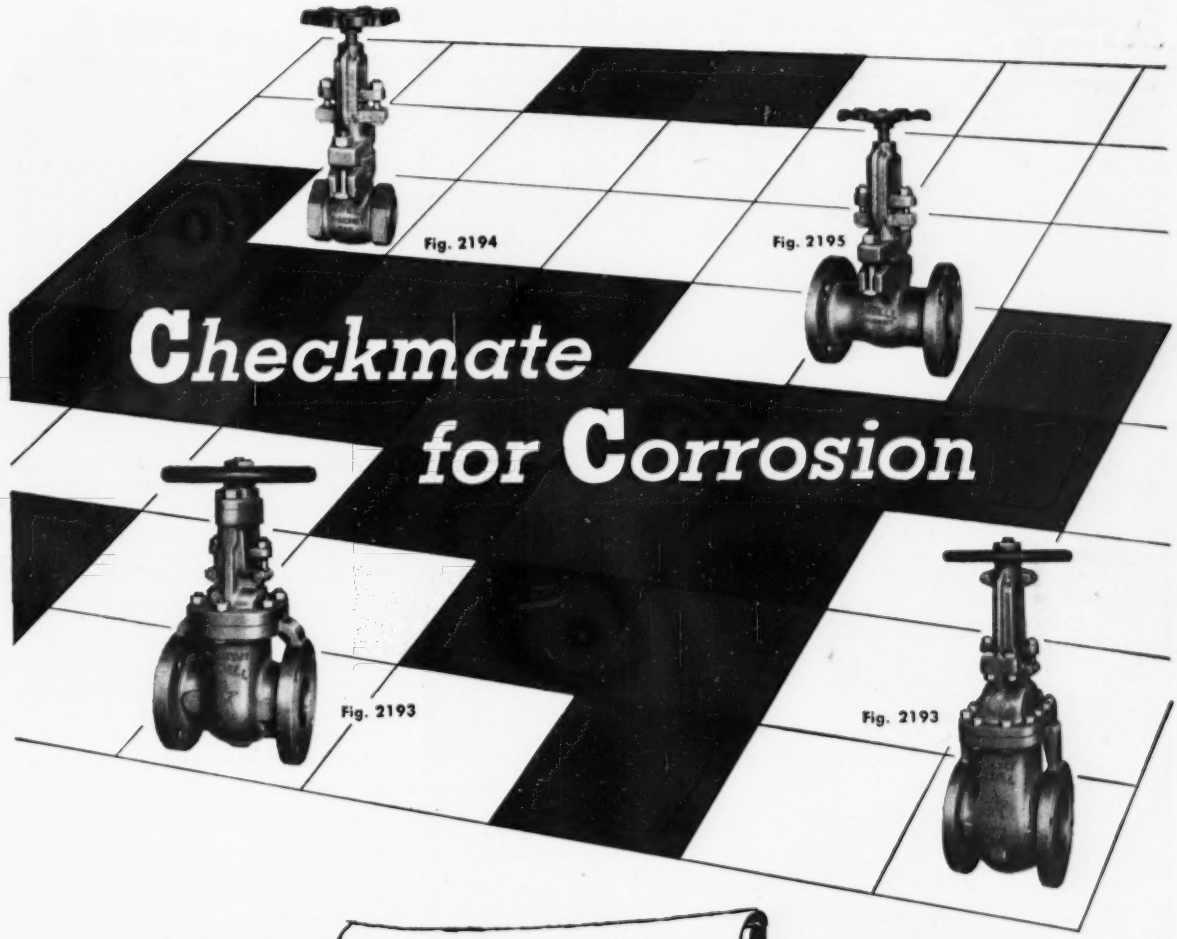
Mr. Gatlin

plant of Erwin Mills, Inc., has taken over the position of manager of the recently purchased Aragon, Ga., plant. * * * **Edgar L. Schlesinger** of United Merchants was recently made an honorary member of the Sigma Phi Tau fraternity at Philadelphia Textile Institute. He is president of the Philadelphia Textile Institute Alumni Club of New York.

Succeeding William Hyland as superintendent of the knitting room at Ware Knitters, Inc., is **Adolph Kalafarski.**

Horace Fleming has replaced Arnold L. White as overseer of the carding and spinning department at United States Rubber Co.'s Reid Mill. Mr. White died following a heart attack on November 13.

Carl A. Boggs, general manager of three mills in the Fabric Production Div. of United Merchants and Manufacturers, Inc., was recently placed in charge of a fourth mill, Old Fort

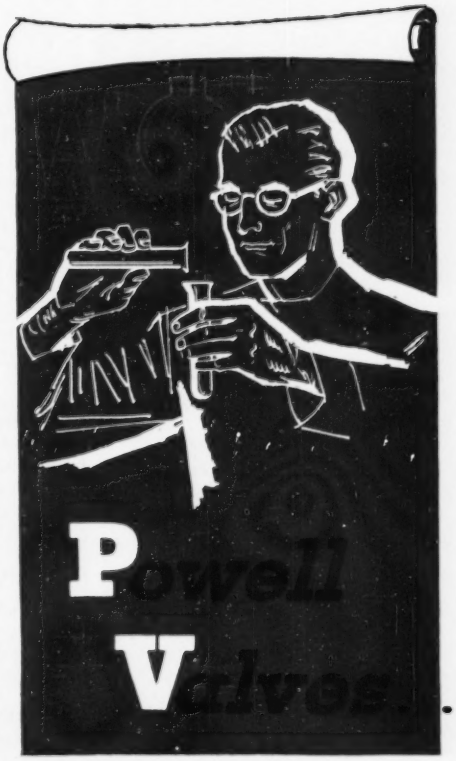


GATE VALVE *(upper left)* **Fig. 2194** for 225 pounds W.O.G. Screwed ends, bolted flanged bonnet, inside screw rising stem. Body and bonnet are made of Ni-Resist, with 18-8S Mo Stainless Steel (Type 316) stem, seats, and wedge. Sizes ½" to 2", inclusive.

GATE VALVE *(upper right)* **Fig. 2195** for 200 pounds W.O.G. Flanged ends, bolted flanged bonnet, inside screw rising stem. Ni-Resist body and bonnet, with stem, seats, and wedge made of 18-8S Mo (Type 316) Stainless Steel. Sizes 1" to 3", inclusive.

GATE VALVE *(lower left)* **Fig. 2193** for 200 pounds W.O.G. Flanged ends, bolted flanged bonnet, outside screw rising stem and one-piece yoke. Body, bonnet, and yoke are Ni-Resist. Stem, seats, and wedge are 18-8S Mo (Type 316) Stainless Steel. Size 4".

LARGE SIZE GATE VALVE *(lower right)* **Fig. 2193,** 5" to 12", inclusive, for 200 pounds W.O.G. Flanged ends, bolted flanged bonnet, outside screw rising stem and two-piece yoke. Ni-Resist body, bonnet, and yoke, with 18-8S Mo (Type 316) Stainless Steel stem, seats and wedge faces.



It's a winning move every time you select Powell *Ni-Resist* Valves. For here is an alloy that has far greater corrosion and heat resistance than ordinary Cast Iron. Similar to gray iron, and resembling austenitic stainless steel in many ways, no other cast metal offers such a unique combination of useful properties.

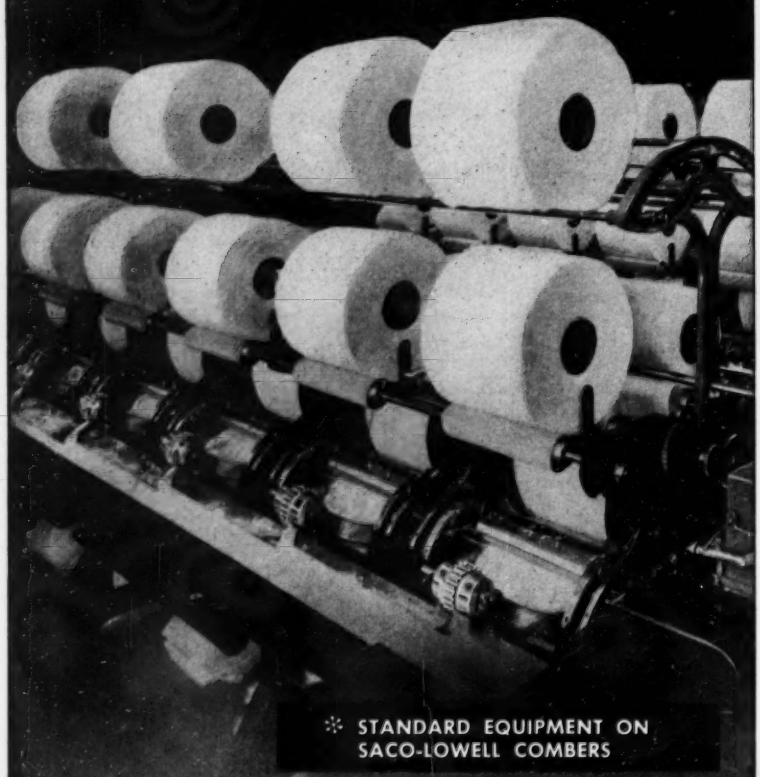
Powell Ni-Resist Valves are especially adapted for handling pulp and paper mill liquors, oil refinery acids, alkalies and sludges, caustic soda, pickling solutions, sea water and many other fluids. Shown here are just a few of them to help you checkmate the high cost of corrosion. They're available through distributors in principal cities. If a distributor is not located near you, just write us—The William Powell Company, Cincinnati 22, Ohio. We'll be pleased to tell you more about these valves—or to help you with your valve problems. Powell has probably solved more valve problems than any other organization in the world.

CONTROLS FOR THE LIFE LINES OF INDUSTRY

..... 108th YEAR

NO LOST PRODUCTION

with **BIJUR***

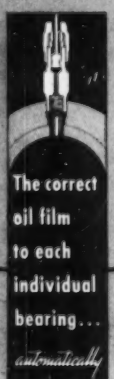


* STANDARD EQUIPMENT ON SACO-LOWELL COMBERS

With controlled lubrication, SACO-LOWELL COMBERS operate at high efficiency — 168 bearings lubricated automatically — with the right quantity of oil, at the right time—"while the machine is running"—with no spotting of the fine product by excess oil.

Specify Bijur Automatic Metered Lubrication — guard hard-to-reach, forgotten bearings on all types of machines — provide longer machine life — lower maintenance — plus INCREASED PRODUCTION.

Consult a Bijur engineer — the expert on all machine lubricating problems.



N-2

BIJUR

LUBRICATING CORPORATION
Rochelle Park, New Jersey
Pioneers in Automatic Lubrication

246

Personal NOTES ABOUT MEN YOU KNOW

(N. C.) Knitting Mills, which had previously been operating under supervisory direction from the Division headquarters in Greenville, S. C.

Joe L. Jennings, executive vice-president of West Point (Ga.) Manufacturing Co., was recently elected to the board of directors of Cabin Crafts, Inc., Dalton, Ga. **Hal S. Dumas,** executive vice-president of American Telephone and Telegraph Co., was named a member of West Point's board of directors. **Frank A. Norman, Jr.,** was recently elected as assistant treasurer of four subsidiary companies: Columbus (Ga.) Manufacturing Co., Dixie Mills, Inc., LaGrange, Ga., Equinox Mill, Anderson, S. C., and Wellington Sears Co. of New York, N. Y.

Recently named vice-president and director of Duplan Corp. was **John Haesler** who in addition to coordinating fabric sales and weaving operations is responsible for purchasing raw materials.

New president of Woolknit Associates, Inc., is **Arthur Corkery** of the spun fibers worsted division of American & Efird Mills, Inc. He succeeds **Andre R. Bonte,** Bonte Spinning Co., Woonsocket, R. I., now chairman of the board. Vice-presidents elected were **John Caron, Jr.,** Caron Spinning Co., Rochelle, Ill.; **Harry M. Freeman,** James Lees & Sons Co., Inc., New York; **Herbert Payan,** French Worsted Co., Woonsocket, R. I.; and **Leonard Michaelson,** Irving Cohen Yarn Co., Brooklyn, N. Y.

Obituaries

John M. Adan, 56, fabrics design engineer for the Kenwood Mills division of F. C. Huyck & Sons.

Edwin F. Greene, 74, treasurer and president of Pacific Mills from 1907 to 1928, and connected with others such as Dwight Manufacturing Co., Pelzer Manufacturing Co., etc.

Theodore H. Keller, 45, production manager of Bridgeport Fabrics, Inc.

Clarence V. Lael, 57, head of Glen Alpine Knitting Mills (now Johns Hosiery Mill) prior to his retirement six years ago.

Arthur J. Lacroix, 68, president and treasurer of Jordan Woolen Mills,

HERE'S HOW PROGRESS IS MADE...

FIRST: Research finds out *what* can be done to satisfy a given need.

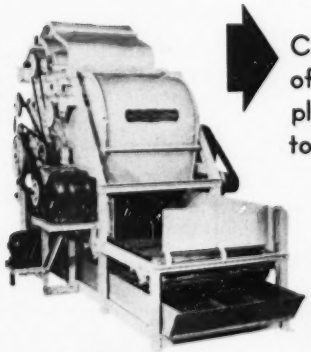
SECOND: Established manufacturing skill finds out *how* it can be done best.

AN EXAMPLE:

The Southern Regional Research Laboratory found out what could be done to effect perfect separation of textile fibers.

CEN-TENNIAL COTTON GIN COMPANY found out how best to do it—and did it!

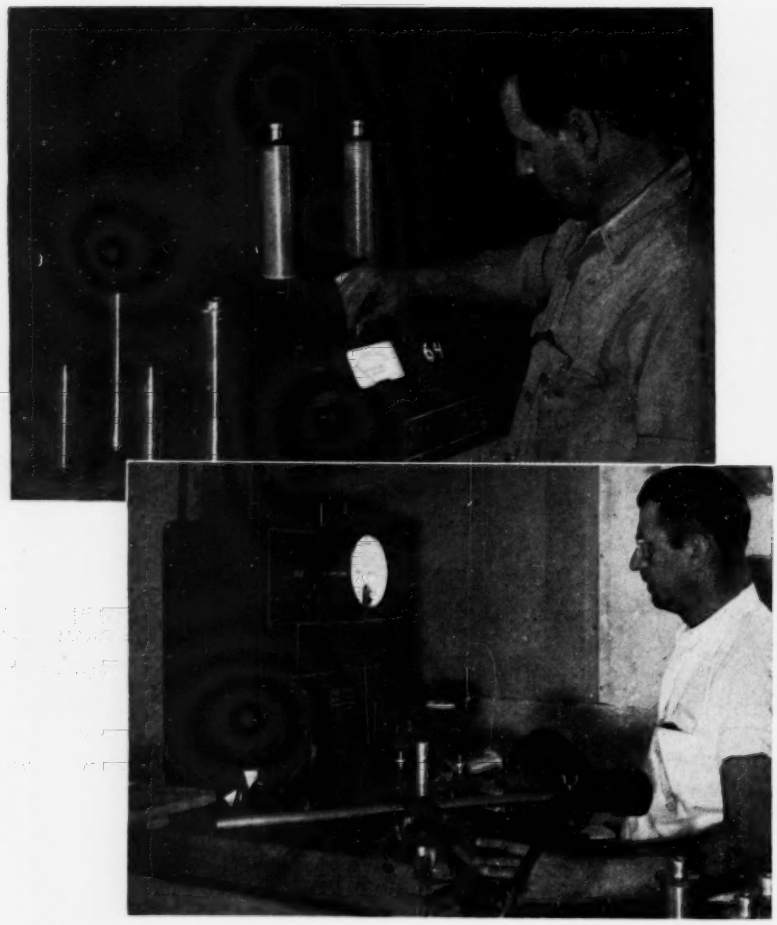
CEN-TENNIAL now incorporates more than 60 machine years of experience in their Textile Fiber Opener. This experience, plus the many mill-demanded improvements in the SRRL prototype, costs you no more!



TEXTILE MACHINERY AMERICAN ASSOCIATION EXHIBITION

CEN-TENNIAL COTTON GIN COMPANY

Columbus, Georgia



They put more RPM into your LESTERSHIRE BOBBINS

It will pay you to investigate the performance of Lestershire Bobbins.

Many mills find that these bobbins substantially increase their production.

Lestershire bobbins run true at today's high speeds because Lestershire technicians, equipped with the most modern equipment, test every bobbin for balance to assure maximum performance.

Lestershire bobbins are made of hard, close-grained maple, vulcanized fibre, laminated phenolic, and aluminum in a variety of combinations for a wide range of uses. Included are twister bobbins, take-up bobbins, headless take-up packages and many others.

Bobbins that do not run true cost you money every day in lost production and in shortened bobbin and spindle life.

The proof of a bobbin is in the running. So write us today to have a representative call and arrange for you to make a test of Lestershire better balanced bobbins in your plant.

LESTERSHIRE SPOOL & MFG. CO.

Division of National Vulcanized Fibre Company

140 Baldwin Street — **Johnson City, N. Y.**

BRANCH OFFICES AND TECHNICAL SERVICES:
National Vulcanized Fibre Co.

New Haven, Conn.
Chicago, Ill.
Baltimore, Md.
Detroit, Mich.
St. Louis, Mo.
Philadelphia, Pa.
Pittsburgh, Pa.
New York, N. Y.
Rochester, N. Y.
Cincinnati, Ohio
Cleveland, Ohio

Greenville Textile Supply Co.
Greenville, S. C.

Odell Mill Supply Co.
Greensboro, N. C.

National Fibre Co. of Canada, Ltd.
Toronto, Ontario

Personal NOTES ABOUT MEN YOU KNOW

Waterford, Conn.

George F. Lattimore, secretary-treasurer of Park Yarn Mills Co., Kings Mountain, N. C.

Robert A. Leeson, 76, chairman of Universal Winding Co. and formerly president.

John W. Lister, 62, vice-president of the Allendale Co.

W. W. Metcalf, with Portland Silk Co. prior to his retirement in 1936.

Robert W. Moorhead, 76, secretary-treasurer and general manager of the Moorhead Knitting Co. until he retired in 1937.

George W. F. Mullis, 72, vice-president and director of manufacturing of Interwoven Stocking Co.

Robert H. Papy, Sr., supervisor of the inspection department at Collins & Aikman Corp.

Earl A. Powell, superintendent of the Rockmart, Ga., mill of Goodyear Tire & Rubber Co.

Thomas S. Ramsdell, 72, retired vice-president of Monument Mills.

D. Julian Reid, overseer of spinning and carding at the Atco, Ga., mill of Goodyear Tire & Rubber Co.

Frank R. Sanders, 62, plant engineer at U. S. Rubber Co., Winnsboro, S. C.

E. Eugene Schneider, 70, president of Schneider Dye Works, Inc.

Elmer F. Smith, 63, vice-president of American Aniline Products, Inc.

William P. Straw, 75, agent of Amoskeag Industries, Inc., and former agent of the old Amoskeag Textile Manufacturing Co.

Earle E. West, 63, president of the Redman Process American Corp. and former secretary of the Underwear Institute.

A. L. White, Sr., overseer of the carding and spinning department, Reid Mill of U. S. Rubber Co., Hogansville, Ga.

William H. White, 59, plant superintendent of the Republic Cotton Mills, Great Falls, S. C.

Hans Wolf, 55, vice-president of Sandoz Chemical Co.

MAKE
SMOOTH SAILING
OF YOUR
WATER-REPELLENT
PROBLEMS
WITH...

®

Hydro-Pruf allows you to assure your customers truly durable water repellency, plus a finer hand.

What's more, Hydro-Pruf is easier, faster and more economical to use, for these reasons:

APPLICATION EASE—readily miscible in cold water... applies equally well from hot or cold solutions... does not build up on rolls... **can be run all day without stopping machine to wash.**

FULL COMPATIBILITY—can be used with all urea and melamine formaldehyde resins... and with many others of the non-curing types.

GREATER ECONOMY—ease, speed and efficiency of application... lower bath concentration... higher production.

FABRIC VERSATILITY—excellent on most fabrics: acetate and viscose... both spun and filament... cotton ... wool... silk... nylon and other synthetics.

IN ALL NAPHTHOL DYEINGS Hydro-Pruf prevents crocking and change of shade.

Write for Hydro-Pruf Booklet and Technical Service Bulletin

ARKANSAS CO., INC.
Serving the Textile Industry for over 50 Years
NEWARK, NEW JERSEY

Another SONOCO *First*

THE REVOLUTIONARY

DUROWELD

PROCESS

TEXTILE MACHINERY AMERICAN EXHIBITION ASSOCIATION ATLANTIC CITY APRIL 26

See DUROWELD Products on display in our Booth - No. 71-72.

DUROWELD by SONOCO — developed to give the textile industry a tough, low cost, reusable carrier.

This process enables us to produce radically new and different carriers. They are extremely strong and capable of withstanding the high speeds of today's modern equipment. Micrometer tolerance and true balance are other outstanding characteristics of these products.

DUROWELD by SONOCO was perfected only after months of exhaustive research and tests, and represents an important carrier advancement with industry-wide benefits.

If you are at present experiencing carrier problems, our sales and engineering departments would be happy to discuss them with you.

- DACRON TUBES
- BOBBINS
- TWISTER TUBES
- SPOOLER SLEEVES
- CHEESE CORES
- NYLON SIZING CORES
- LAP ROLLS
- PERFORATED DUROWELD TUBES
- and many other possible uses!

Can be supplied with various surfaces. Ends can be colored for identification.

SONOCO PRODUCTS COMPANY

MAIN OFFICE—HARTSVILLE, S. C.

MYSTIC, CONN. LOS ANGELES, CAL. BRANTFORD, ONT. LOWELL, MASS.
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DEPENDABLE SOURCE OF SUPPLY

sonoco SERVES THE WORLD PAPER CARRIERS

REG. U.S. PAT. OFF.

Yarn of Identical Color from 6 Different Beams

. . . because All 6 were Dyed in the Same Bath

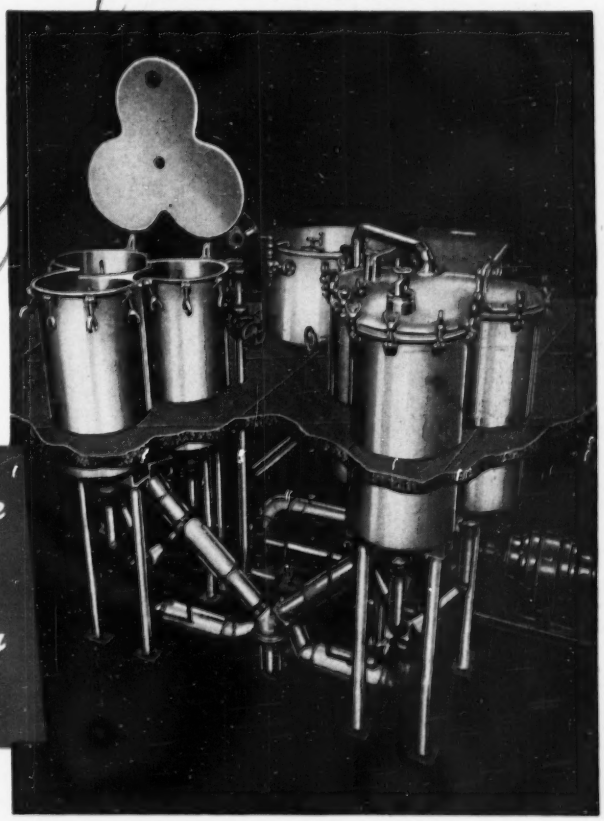
You can be positive of securing identical color only when the different beams or packages of yarn are dyed under identical conditions. And identical conditions are certain only when they are dyed in the same bath!

SMITH-DRUM Combination Beam and Package Dyeing Machines are designed to handle from 2 to 6 beams or yarn carriers simultaneously in the same bath and under identical conditions. This means that each beam or yarn carrier is dyed with the same liquor ratio . . . under the same operating conditions of flow, pressure and temperature . . . with uniform distribution of additions to the dye bath.

If you are interested in absolute uniformity of dyeing results, in economy of operation, in saving of floor space . . . let us arrange to have one of our representatives discuss the possible application of this SMITH-DRUM Machine to your operations. A letter, telephone call or wire will receive our prompt attention.

SMITH, DRUM & COMPANY
432 W. Allegheny Avenue, Phila. 33, Pa.

Southern Sales Representatives:
PARROTT & BALLENTINE
South Carolina National Bank Bldg.
Greenville, South Carolina



The **SMITH-DRUM** *Machine that Dyes from 2 to 6 Beams or Yarn Carriers in the Same Bath!*

Free copy of Catalog No. PBD-801 will be sent to you on request

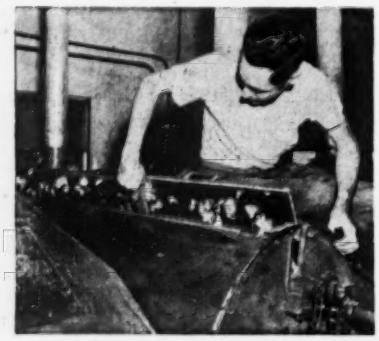
TRAMP IRON LOSSES HALTED!

Fire, Damaged Machinery & Goods, Man Hour Losses Due to Tramp Iron, Virtually Ended by Eriez Magnets Say Textile People. Case Histories Tell the Story!

During a 30-day period an Eriez Permanent (non-electric) Magnet removed these 1,045 pieces of tramp iron, ranging from minute particles to large pieces!

Eriez Magnetic Separators For Textile Use

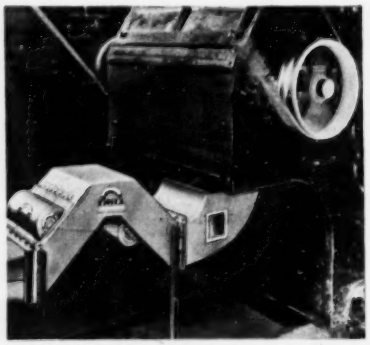
Typical examples of the variety of Eriez application coupled with sound "magnetic" installation engineering to solve tramp iron problem in cotton mills, waste plants, woolen mills and rayon rolls.



SPIKED APRON MAGNETS

The Eriez Spiked Apron Magnet was designed to meet the need of the textile industry in removing tramp iron while processing wool, cotton, rayon or sisal. Installation and maintenance is simple. Many mills report practically total elimination of damage to costly card and garnett clothing and stoppage of picking room fires.

Eriez 58" Spiked Apron Magnet removes 3 to 4 pounds of tramp iron each day from cotton being processed in this mill. No maintenance except simple cleaning. No operating costs.



PNEUMATIC LINE ASSEMBLY (HUMP)

In pneumatic lines the Eriez Magnetic Hump provides tramp iron protection by catching stray metal with two powerful ATOMagnets, one on each side of a flow-interrupting unit, giving *double* protection. Available for air lines from 2¾" to 20". Any shaped pipe or outlet can be converted to the Eriez Magnetic Hump's rectangular opening.

Vertical Hump installed between bale breaker and vertical opener creates a tumbling action which slows down and breaks up the flow of material allowing powerful ATOMagnets to remove tramp iron.

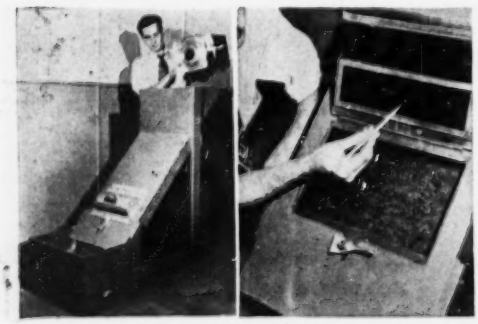


PLATE ATOMagnets

Eriez Plate Magnets are easily installed over or under chutes, belts or, as illustrated, on hoppers. The flat-faced magnet is made up of a series of powerful, stable, Alnico V castings, mounted on magnetic steel plates, surrounded by a non-magnetic installation strip. Plate ATOMagnets are available in any size for a variety of applications.

Plate ATOMagnets, mounted on top and beneath wooden chute, remove metal chips from raw virgin nylon being poured into hopper.

Operator points to typical tramp metal chip which came from the can of powder. In this mill about 75 chips are removed each week.

"Fire damage eliminated," says a mill in New England.

"Three years since the company has suffered machinery damage," reports a South Carolina textile manufacturer. *"We can hardly put a dollar valuation on the amount of money saved since installing Eriez magnets."*

"Our Eriez magnets are instrumental in saving approximately 250 man hours annually in addition to preventing machinery damage and shutdown," says a manufacturer in Georgia.

No wonder that 9 out of 10 textile mills specify Eriez!

Eriez Permanent Magnetic Separators are non-electric. They are not dependent on electric current or on maintenance—the first cost is the last cost.

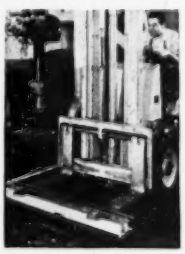
Eriez units contain high-strength Alnico V . . . the power that simply and efficiently removes spark-causing iron and steel from wet or dry fibers . . . cotton, wool, rayon, floss silk, flax, hemp, asbestos, flax tow, jute, feathers, furs, hair, sisal, kapok, excelsior and all kinds of waste.

Thanks to the flexible designs and sizes of Eriez magnet installations, dangerous tramp iron can be prevented from entering every type of textile processing machinery . . . openers, likerin rolls, beaters, garnett roll teeth, gin saws, wool and rayon cards.

ERIEZ MAGNETS

Super Sweeper Keeps Factory Aisles, Lots, etc. Free from Nails, Scraps

Eriez Magnetic Super Sweeper removes dangerous tramp iron from floors, parking lots, warehouses, etc. Four sizes in three magnetic strengths. Manual or mechanical operation . . . pull it, push it or suspend it. Write for Bulletin on this new versatile trouble saver.



Eriez Manufacturing Company, 728 Magnet Drive, Erie 6, Pa.
Send me Bulletin on Eriez Magnetic Separators for the Textile Industry ☐
Send me more information about the Eriez SUPER SWEEPER ☐

Name_____ Title_____

Company_____

Street and City_____

Wide range of fast colors for "DACRON"*

The eight "LATYL"* colors developed by Du Pont especially for "DACRON" polyester fiber are compatible with one another and with other disperse dyes in compound shades. They enable you to produce an unlimited range of colors.

The "LATYL" colors have a remarkable degree of resistance to light fading, atmospheric gas-fume fading and excellent fastness to washing. These dyes are suitable for dyeing materials made entirely of "DACRON" and for blends containing "DACRON" and other fibers. In addition, the "LATYL" colors are suitable for pale shades on acetate where they also show exceptional fastness to light and atmospheric fading.

The Du Pont "LATYL" colors, as well as the conventional disperse dyes, can be applied to "DACRON" by the use of carriers, high-temperature dyeing without carriers, or by the Thermosol method. Du Pont's technical staff will be glad to help you in the choice and application of these new dyes . . . or on any coloring problem. Write to E. I. du Pont de Nemours & Co. (Inc.), Dyes and Chemicals Division, Wilmington 98, Delaware.

*REG. U. S. PAT. OFF.

"LATYL" Yellow YL • "LATYL" Red B
"LATYL" Violet BN • "LATYL" Violet 2R
"LATYL" Brilliant Blue 2G • "LATYL" Blue FL
"LATYL" Blue B • "LATYL" Orange R

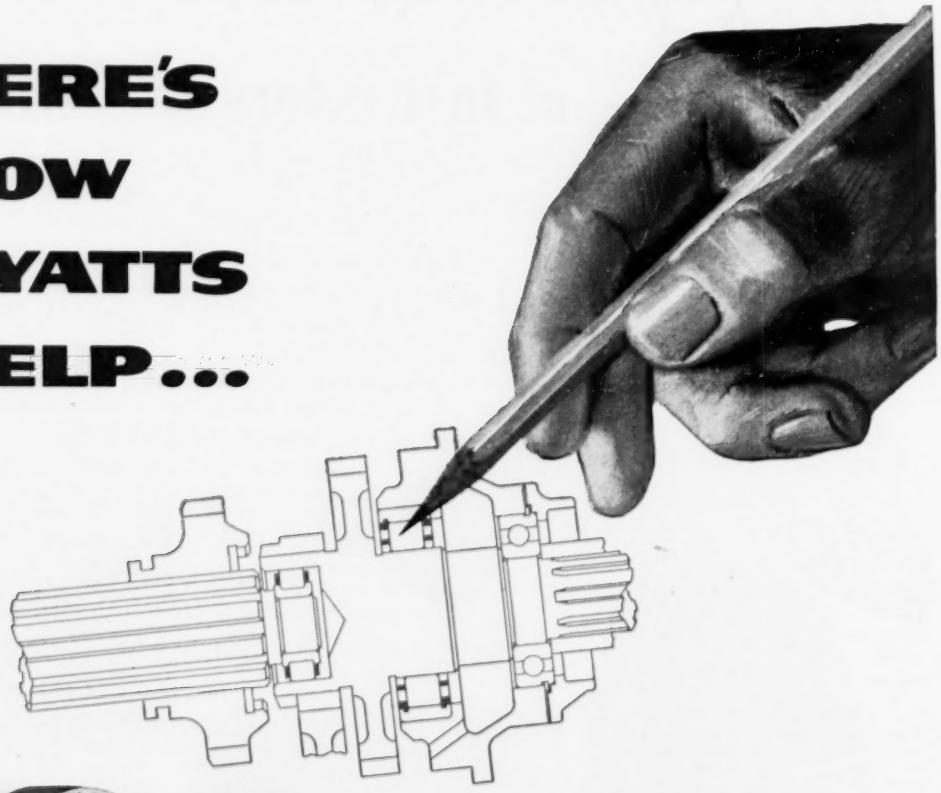
Du Pont Dyes

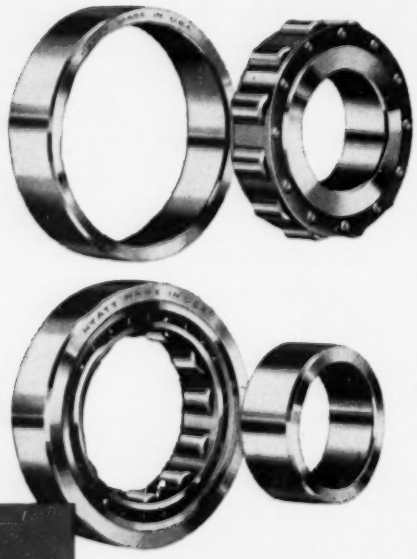
DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING ... *THROUGH CHEMISTRY*

when LIMITED SPACE is a design factor

HERE'S HOW HYATTS HELP...

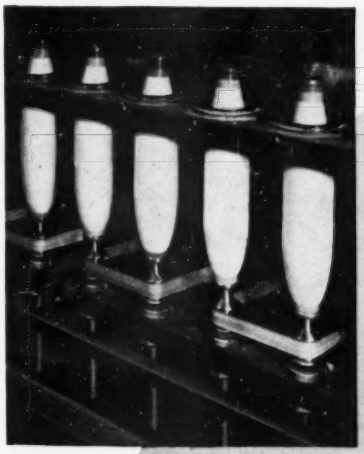




Sometimes a fraction of an inch is the difference between a simple design modification and costly re-tooling. And the engineer who is thoroughly familiar with Hyatt Roller Bearings will know a lot about how to save those fractions. He'll know, for example, that to gain greater shaft rigidity with the same size housing, he need only check his Hyatt catalog for a separable inner race type of bearing. This type—available in a wide range of sizes—may be applied with the rollers operating directly upon the surface of a suitably hardened and ground shaft. Thus, a larger-diameter shaft may be used without sacrificing bearing capacity, or a larger-size bearing may be used without changing the size of the shaft. For a copy of Hyatt's latest catalog, No. 150, write to Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS

STRAIGHT BARREL TAPER



Marquette
ROLLER BEARING SPINDLES

with
FULL-FLOATING
FOOTSTEP BEARING

FOR - COTTON • SYNTHETICS • WOOL • WORSTED

Here is another mill that has learned the many advantages of using Marquette Roller Bearing Spindles. Starting three years ago with a single test frame, this mill has since purchased 39,220 Marquette Spindles —solely on the basis of *superior performance.* These spindles are low in initial cost and low in maintenance expense. With minimum power consumption, they operate efficiently at high speeds . . . day after day and year after year. You too can get MORE YARN AT LOWER COST with Marquette Roller Bearing Spindles, and we'll be happy to prove this through a test installation. Contact our home office or one of our representatives.

PROTECTED BY U.S. AND FOREIGN PATENTS AND PATENTS PENDING

The Marquette METAL PRODUCTS COMPANY

CLEVELAND 10, OHIO • SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Also Manufacturers of: HYDRAULIC GOVERNORS • PRECISION PARTS AND ASSEMBLIES • WINDSHIELD WIPERS FOR AIRCRAFT
FUEL OIL PUMPS • FUEL OIL INJECTORS • ROTARY HIGH PRESSURE OIL FIELD PUMPING MACHINERY

Faster knitting plus continuous means greater profits

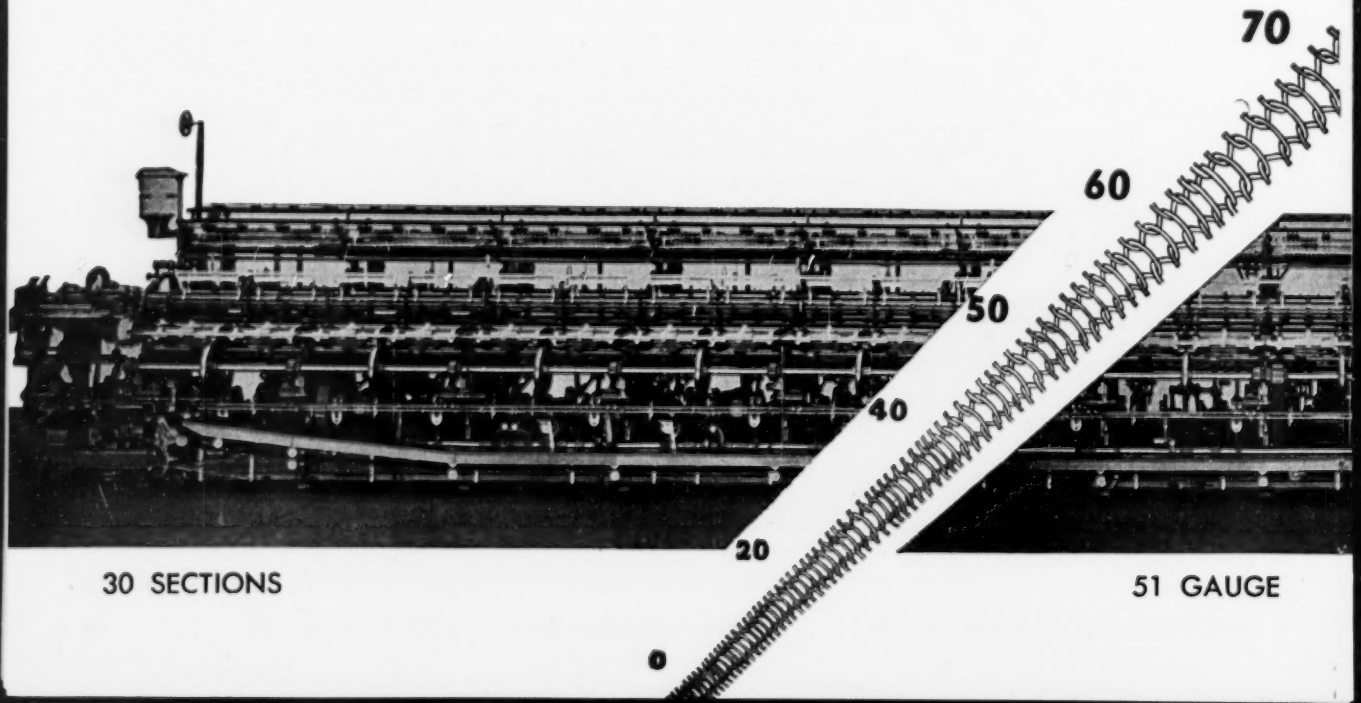
The new "Reading 100" Full-Fashioned Knitting Machine is not only the fastest multiple section machine of its kind, but it is also the most reliable.

Here is a marvel of mechanical precision — 30 sections, practically vibration-free, operating at 100 courses per minute.

Check these performance advantages that make this new Reading machine outstanding:

- Complete speed flexibility... because the Automatic Speed Selector provides unlimited stations for making speed changes throughout the knitting of the blank.
- Consistent narrowing speed of 75 courses per minute . . . because of end control with its rigid construction.
- Easy to check needle bar position for controlling stocking width . . . because of newly designed cam motions.
- Less time required for making or checking cam settings . . . because all cam adjustments, except needle bar and balancing cams, are made at one point.
- Quieter, more accurate rocking action . . . because three reinforced selvedge rockers are uniformly positioned over the length of the machine.
- More uniform control of presser shaft . . . because three lace helper units are provided.
- Positive protection against damage to slurcam box housings, jacks, jack beds, sinkers and verge plates . . . because of camshaft operated catchbar safety.
- More accurate and satisfactory operation in the production of fine fabrics at increased speeds . . . because front catchbar and knockover bit shafts have been increased in diameter from 1-3/16 inches to 1-9/16 inches, thus reducing torque and sag in these important elements.

If you want extra courses per minute *without* interruption, extra dozens of fine quality full-fashioned stockings, extra profits — see the "Reading 100" without delay. Or write us for full details.



operation

100

95

90

85

80

5

100

courses

per minute

The "READING 100"

Full Fashioned Knitting Machine

60 GAUGE

66 GAUGE

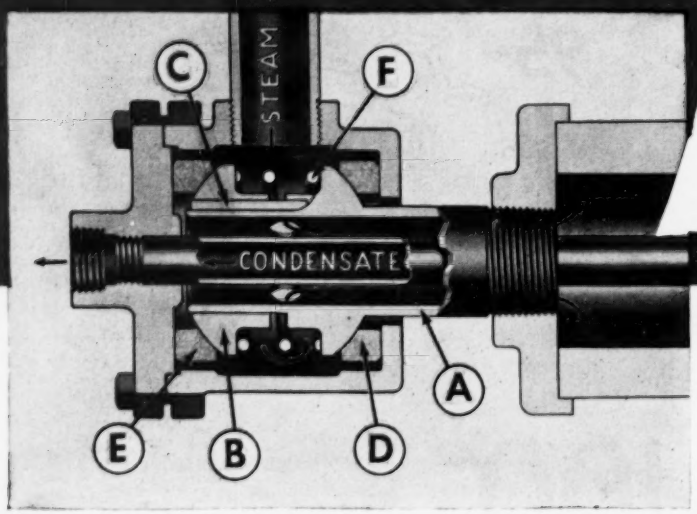
TEXTILE MACHINE WORKS

READING, PENNA., U. S. A.

Smaller ~~Bigger~~ and Better than ever!

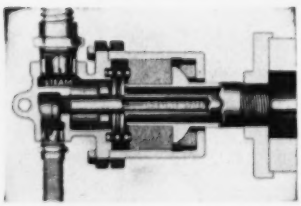
JOHNSON
Rotary Pressure
JOINTS

NOW SMALLER SIZE
LIGHTER WEIGHT
LOWER COST
LONGER LIFE



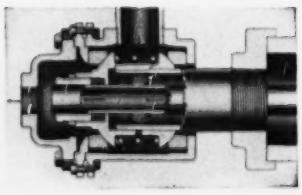
The NEW Type J Johnson Joint

Nipple (A) is connected to roll or drum. Collar (B) is keyed at (C) to rotate with nipple. Seal ring (D) and bearing ring (E) are of special carbon graphite to eliminate all packing or need for lubrication; these have been redesigned for greater web thickness and longer life. Spring (F) is for initial seating only; in operation pressure is sealing force. The Type J is also available with body lugs for rod support, and with special assembly plate to facilitate use of mechanical syphon pipes.



The New Series 2000 Type S

Self-supporting — syphon type or thru flow.



The New Series 2000 Type N

Used where syphon pipe or steam distribution pipe must rotate with the roll.

There's big news for you in the small size of today's Johnson Joints.

First of all their new smaller size makes them easier to handle and install.

They cost less in the bargain.

Yet they are actually longer lasting. The effective thickness of the seal rings has been increased as much as 25%.

In every important respect they offer the same packless, self-lubricating, self-adjusting design that has made Johnson Joints such outstanding favorites among mill men and machinery men alike.

You can switch over to these better-than-ever Johnson Joints with more assurance than ever that they will quickly save their cost.

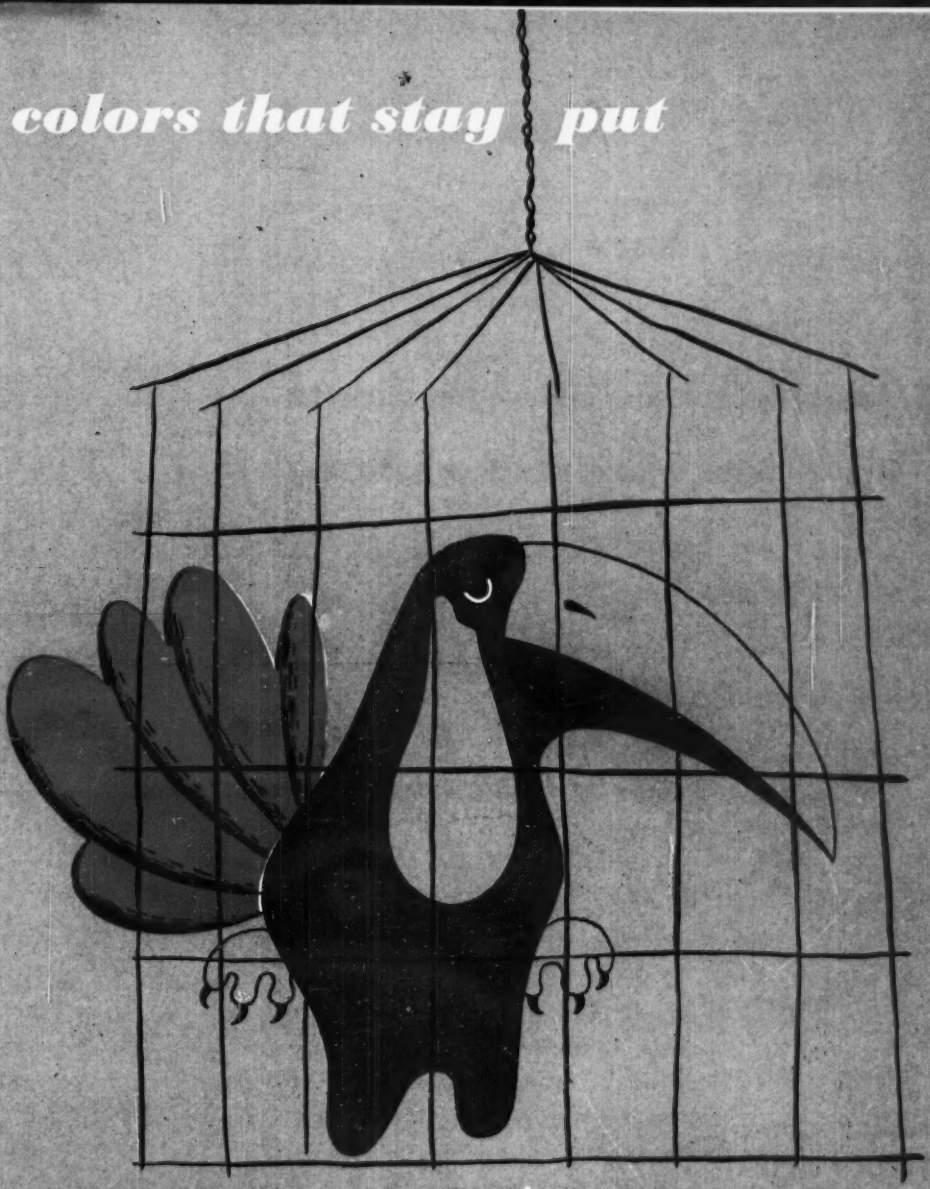
This major engineering change is being accomplished throughout the entire line of Johnson Joints; there are types and sizes for all operating needs. Write for new literature.

Products of The **Johnson Corporation**

815 Wood St., Three Rivers, Mich.

Rotary Pressure Joints • Compressed Air Separators and Aftercoolers • Direct Operated Solenoid Valves • "Instant" Steam Water Heaters

for colors that stay put



DUROFAST

No matter what the shade, the **DUROFAST** full color range stays put. **DUROFAST** colors are extremely adaptable, suitable for all direct dyeing. In every application, you can depend on **DUROFAST** to hold its color against light, washing and resin finishing.

Color cards, samples and technical data upon request.

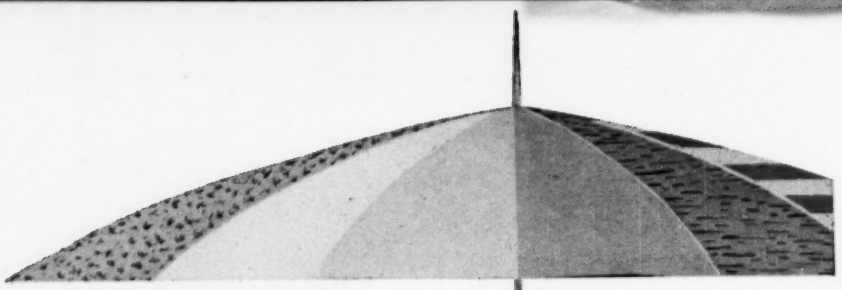
Berkshire COLOR & CHEMICAL CO.

Manufacturing and Executive Offices

DELAWANNA, N. J.

42 Hampden Street, SPRINGFIELD, Mass. • 518 South Ellis Street, SALISBURY, N. C.

Canadian Representative: Thomas Rostron • 4577 Melrose Ave., MONTREAL, Quebec



TRADEMARK

Celaperm's new color-pigments

Open new markets for you today...

Celanese*

CELAPERM*

the acetate yarn with the "sealed-in" color

Currently, fabrics of Celanese Celaperm are big business. In draperies, shower curtains, bedspreads, slip covers and closet accessories for the home. In clothing, swimwear, night wear and intimate apparel for the whole family.

Now, with the development of brand new pigments faster than any previously obtainable, Celaperm means new markets and even bigger business for you.

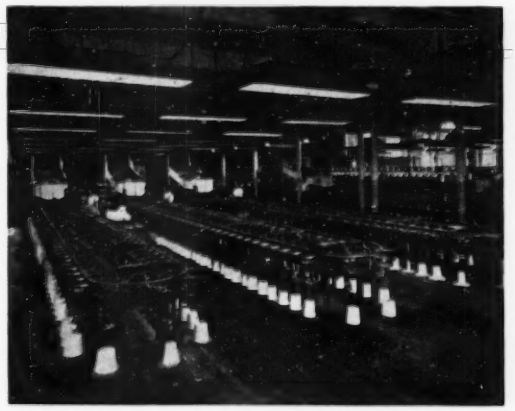
See the Celaperm color range today. There are now nineteen colors in this group—all specifically planned to fit the fashion needs of all the important textile markets that use Celaperm. See how Celanese colors your future. Celanese Corporation of America, N. Y. 16; Boston, Mass.; Camden, N. J.; Charlotte, N. C.

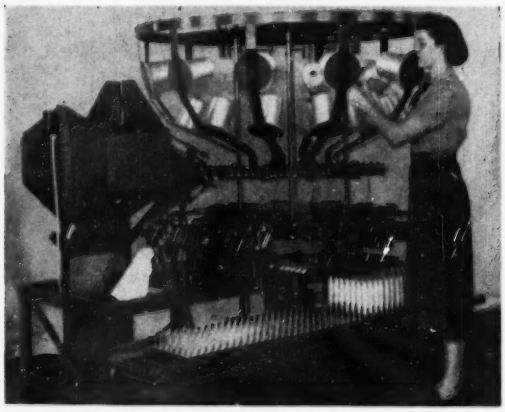
*Reg. U.S. Pat. Off.

Automatic Winders for Rewound Filling

to take advantage of large package spinning, more yarn on filling bobbins, more uniform bunches, better weaving bobbins, and inspected yarn, all of which go to make a better fabric.

TEXTILE MACHINERY EXHIBITION
AMERICAN ASSOCIATION
ATLANTIC CITY APRIL 26-30 1954





Abbott Traveling Spindle Package Winders

Automatic Cone or Tube Winders for warping, dyeing, twisting, quilling, sales.

Can be equipped with any one of a variety of slub catches and inspection devices.

Production up to 1000 bobbins per hour per operator.

Abbott Traveling Spindle Automatic Quillers

For winding cotton, spun rayon, worsted, etc., equipped to doff automatically into baskets, or stack automatically into boxes.

For rewinding woolen yarn from mule and ring frames. For winding filament rayon and nylon, etc., with automatic pinboard attachment or wide belt inspection conveyor.

Production up to 2000 bobbins per hour per operator.

Abbott Fully Automatic Radial Quiller

For smaller lots and widely diversified mills.

For winding cotton, spun rayon, filament rayon, worsted, wool, etc.

Can be arranged to deliver bobbins to Pinboard Attachment, or into baskets, or onto wide belt conveyor.

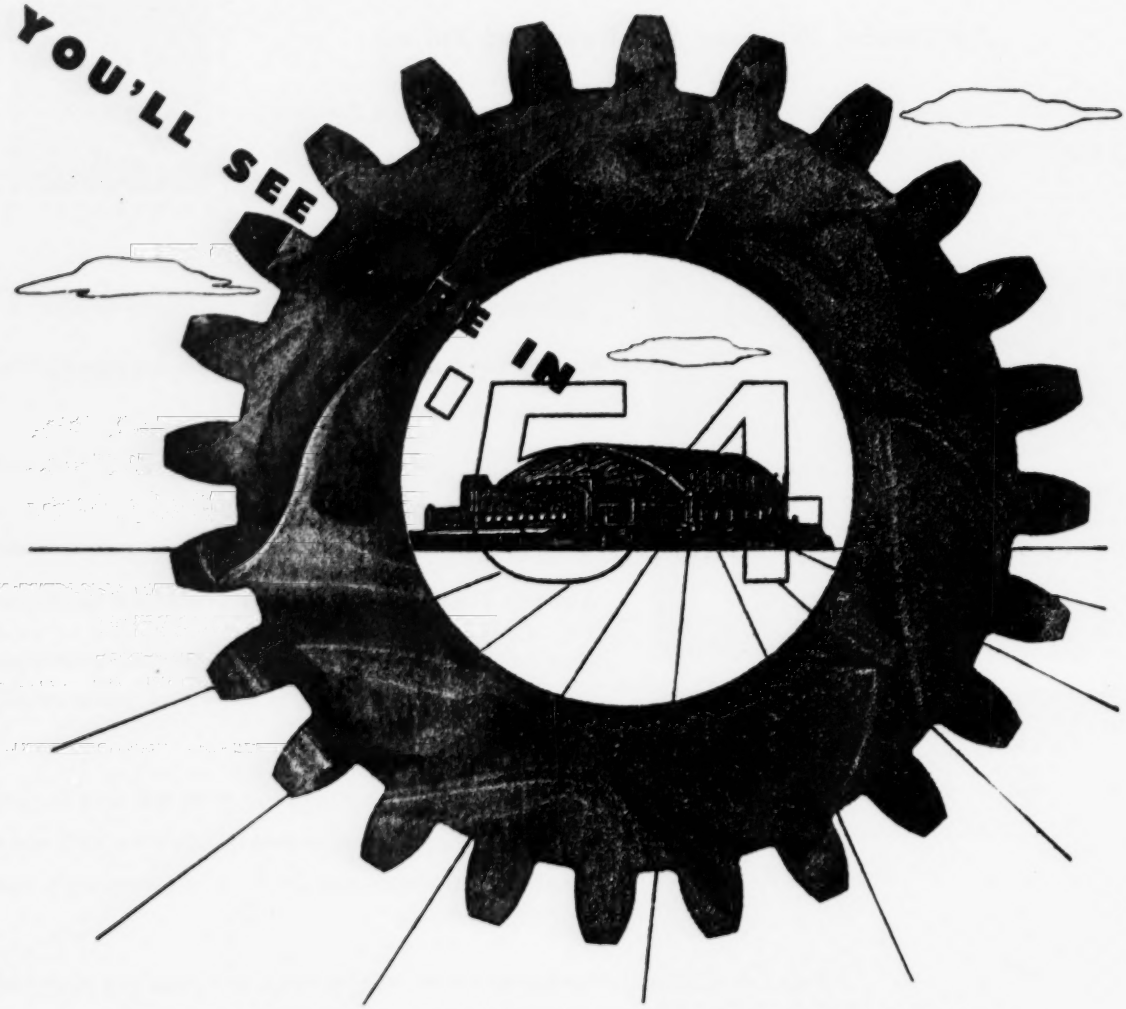
One operator can run several machines producing up to 2000 bobbins per hour per operator.

Can be equipped with measured yardage device for two-shuttle looms.

ABBOTT MACHINE CO., INC.

WILTON, NEW HAMPSHIRE

SOUTHERN SALES AND SERVICE: GREENVILLE, S. C.



Of course you'll see more in '54 — there will be more to see — more new machinery — more new developments — more supplies and services than have ever been presented to the Textile Industry before.

Representatives from more than 250 exhibiting firms will be on hand to greet you and to show you their most modern products — products designed to cut costs and to increase efficiency and quality.

Here, indeed, is a golden opportunity for mill supervisory personnel to examine the latest engineering and mechanical developments within the Textile Machinery Industry. It would take a year to visit each machinery plant to see what you will see here in a few short days.

Make your hotel reservations early through
The Housing Secretary
16 Central Pier
Atlantic City, New Jersey

TEXTILE MACHINERY EXHIBITION
AMERICAN ASSOCIATION
ATLANTIC CITY APRIL 26-30 1954

American Textile Machinery Association Exhibition

APRIL 26-30, 1954, ATLANTIC CITY, NEW JERSEY

For additional details on the Exhibition itself write
A. T. M. A. Press Bureau
Route 4 — Box 61
Vienna, Virginia

RHONITE R-1

GIVES STABILITY AGAINST SHRINKAGE IN A WIDE RANGE OF FINISHES

Dimensional stability against shrinkage is a characteristic of modern drapery fabrics finished with the washfast resin, RHONITE R-1.

The product of years of textile chemical research, RHONITE R-1 gives cotton and other textiles a stability that permits frequent washings without shrinkage or loss of their like-new appearance.

RHONITE R-1 produces a lasting beauty in all types of fabrics—plain, calendered or embossed, makes them wrinkle-and-shrinkage-resistant, without harshness or stiffness.

TEXTILE CHEMICALS

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

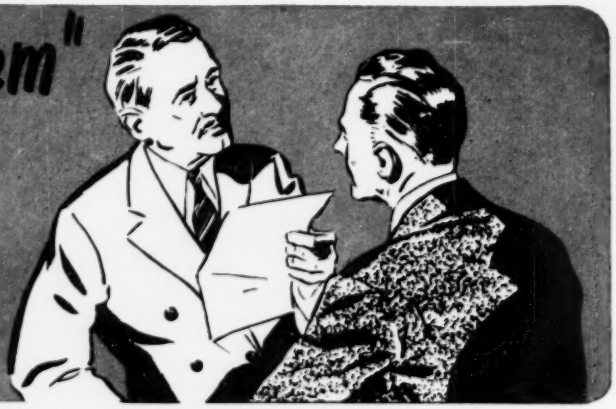
RHONITE is a trademark, Reg. U.S. Pat. Off. and in principal foreign countries.

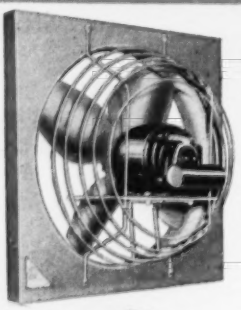
Write or call for complete information about RHONITE R-1—one of the quality chemicals for textile finishing made by Rohm & Haas Company.

"Here's My Problem"

CUSTOMER:

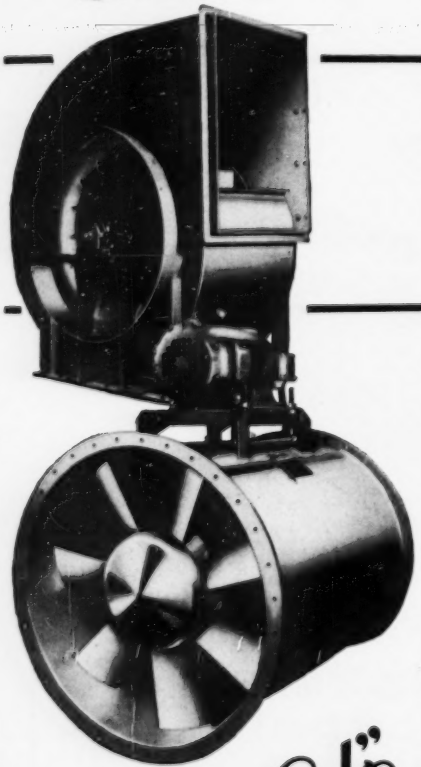
First, one of our older buildings has areas which need spot ventilation. Then, in another building, we're going to need large-capacity exhaust to get rid of dust and moisture. Finally, we need additional capacity in an old system where we've just installed some air cleaning equipment. Now, my problem is . . .





Which "Buffalo" Fan Shall I Use?

BUFFALO REPRESENTATIVE: "To begin with, no single type of fan is the best solution to *all* problems. The best and cheapest answer to your spot ventilation, for instance, is the new Type "NV" Breezo Fan. An efficient propeller fan with strong rigid, die-formed square panel, the "NV" is simple to install in outside walls wherever you need to exhaust stale air. It can be operated free-air or duct-connected (¼" to ½" s.p.) equally well. The "NV" is made in sizes for 500 to 5500, cfm capacities, and if you need larger capacity, use the new "NV" Heavy-Duty Belt-Air, it's in sizes up to 90,000 cfm.



"Now, for your large-capacity exhaust system, you'll get greatest long-run satisfaction and economy with the new Type "BL" Limit-Load centrifugal fan. It's the type recommended most frequently for large systems—straight ventilation, air washer and air conditioning supply. You can't overload it, and it gives stable performance from shut-off to free air delivery. And you can pick exactly the rated capacity you need, from 1000 to 500,000 cfm, with no waste in an oversize fan or overspecified driving power.

"But where you need to step up the capacity of a system, mount an axial flow fan in a straight portion of your ductwork. The "Buffalo" Axial Flow is light, compact and takes little more space than your duct. It's extremely efficient in straight runs, and has guide vanes to keep turbulence and noise at a minimum. So you see, there is no *one* fan for all jobs. At Buffalo, we make all types and sizes, so that you can pick one that's practically tailored to your particular need. We've been building fans for 77 years, too, which means that you can be sure of any "Buffalo" fans you pick."

SUGGESTION: Most important of all, remember that Buffalo Engineering Sales Representatives are all technical graduates, factory trained for a number of years; they know fans and their application. Located in all principal cities, they are ready to assist you, too, in fan selection. Why not call on yours today?

"Buffalo"

BUFFALO FORGE COMPANY

175 Mortimer St. **Buffalo, New York**

PUBLISHERS OF "FAN ENGINEERING" HANDBOOK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

Sales Representatives in all Principal Cities

VENTILATING FORCED DRAFT AIR CLEANING COOLING AIR TEMPERING HEATING INDUCED DRAFT EXHAUSTING PRESSURE BLOWING

See what you can shake out of that cost sheet...

when you decide to SIMPLIFY and SAVE on lubrication!

You can reduce more than one column of cost figures... save real money . . . when you let *a few* Pure Oil multi-purpose lubricants do the work which normally requires dozens of separate oils and greases. Pure Oil, you see, specializes in industrial lubricants, each of which is formulated to do *many different jobs equally well.*

Not only do you save on the number of lubricants, but you save on *man-hours* and *machine maintenance* too. Your whole plant lubrication system—from purchasing to inventory to application—becomes simpler, faster and surer . . . saves time, saves machines, *saves money!*

Clip out the handy coupon and mail it today for our free booklet on this valuable labor-saving, money-saving, lubrication program.

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Be *sure* with Pure—Sales offices located in more than 500 cities in Pure's marketing area.

PURE OIL INDUSTRIAL LUBRICANTS

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Please send me your free booklet on how to "Simplify and Save"

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ADDRESS_____

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Stabiload . . . the only cylinder specifically designed for roll loading!

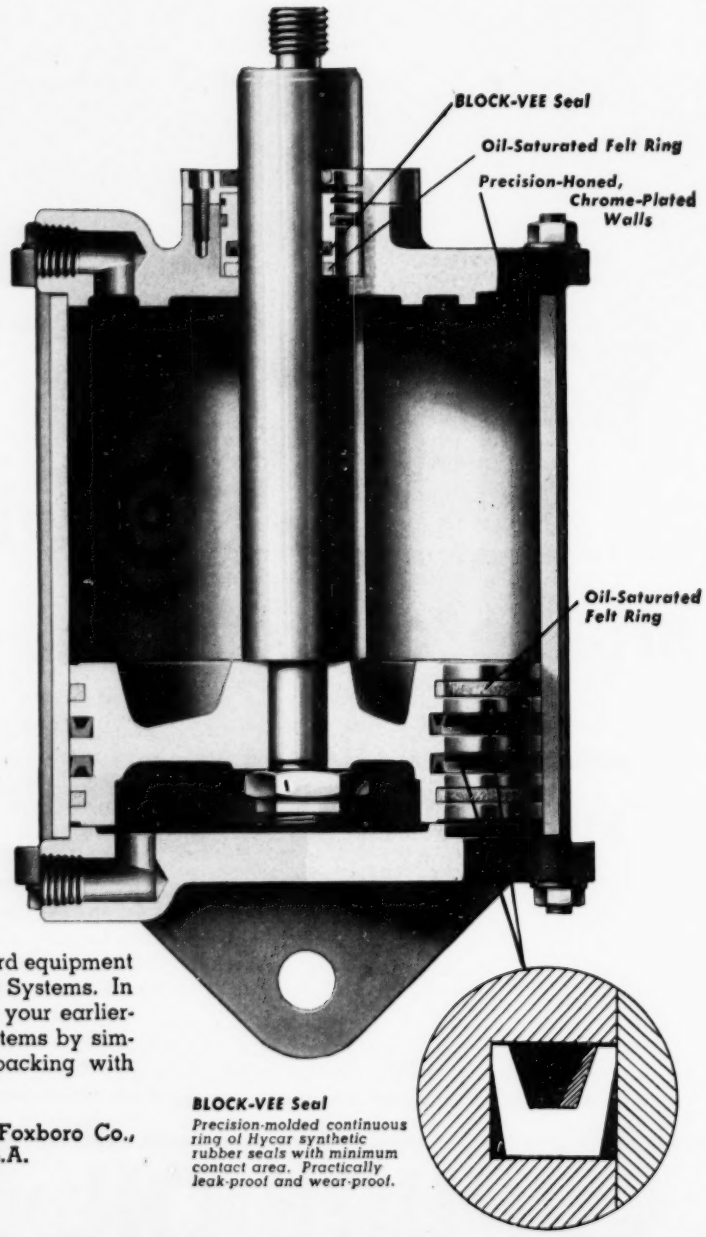
Ends stickiness and air leakage in pneumatic loading

Designed specifically for Foxboro Pneumatic Loading Systems, the new Foxboro STABILOAD Air Cylinder now makes possible more-accurate and more-uniform moisture extraction . . . safely permits higher nip pressure . . . than ever before could be obtained with loaded rolls.

Through use of the exclusive Block-Vee Piston Seal and precision-honed, chrome-plated cylinder wall, Stabiload Cylinders are so nearly friction-free that even fractional changes in air pressure settings give immediate, corresponding changes in roll nip pressure. You'll get substantial savings in maintenance because the Block-Vee Seal never needs attention or adjustment. And the virtual elimination of air-leakage gives substantial savings in compressed air.

STABILOAD Air Cylinders are standard equipment on all new Foxboro Pneumatic Loading Systems. In addition, you can importantly improve your earlier-model Foxboro Pneumatic Loading Systems by simple replacement of piston, rod and packing with STABILOAD components.

Write for detailed Bulletin 446. **The Foxboro Co., 482 Neponset Ave., Foxboro, Mass., U.S.A.**



BLOCK-VEE Seal
Precision-molded continuous ring of Hycar synthetic rubber seals with minimum contact area. Practically leak-proof and wear-proof.

FOXBORO
REG. U. S. PAT. OFF.

PNEUMATIC ROLL-LOADING

FACTORIES IN THE UNITED STATES, CANADA AND ENGLAND

Four Aces OF DYEING

Nonionic* Dyeing Assistants

♥ **Telkanol O**—Effective levelling agent and dyeing assistant for wool, unions and furs. Its strong dispersing action for oils and fats makes it an excellent scouring agent in the acid or alkaline scouring of wool and wool wastes. Exhibits high resistance to acids, alkalies, salts and hard waters.

♠ **Dextrol Fast Salt M**—Dyeing assistant for acid metallized dyestuffs on wool. Reduces amount of sulfuric acid normally needed, cuts dyeing time, increases solidity of shade. Color fastness is improved for perspiration, rubbing and decatizing. Helps prevent loss of tensile strength of fiber.

♦ **Rexan O**—Promotes level dyeing and penetration with direct, basic and vat dyestuffs on all fibers except wool. Exhibits good wetting powers in dyebaths. Eliminates use of glue in vat dyeing and retards rate of exhaustion in first few minutes without impairing total color yield on the fiber.

♣ **Telkanite M**—Highly effective stabilizing agent and assistant for all types of napthol dyeing and printing. Has high stability and dispersing properties in acid medium which makes it particularly suitable for the pasting up and dispersing of bases.

*Polyoxyethylated fatty alcohol

dexter

Textile Chemicals

TEXTILE CHEMICAL DIVISION OF DEXTER CHEMICAL CORPORATION, NEW YORK 59, N. Y.

Philadelphia • Boston • Charlotte • Atlanta • Greensboro • Buenos Aires

Rock Hill Printing & Finishing Co., Rock Hill, S. C.

From the standpoint of yardage in finished and printed goods, the largest plant in this country. It is a typical representative of mass production at low cost as best exemplified in American Industry.

LOCKWOOD GREENE

Projects

in

TEXTILE FINISHING

Lockwood Greene is recognized in the Textile Finishing field not only for the broad scope of its services but also for the large number of engagements it has handled, totaling over 500.

LOCKWOOD GREENE

ARCHITECTS-ENGINEERS

BOSTON 9, MASS.
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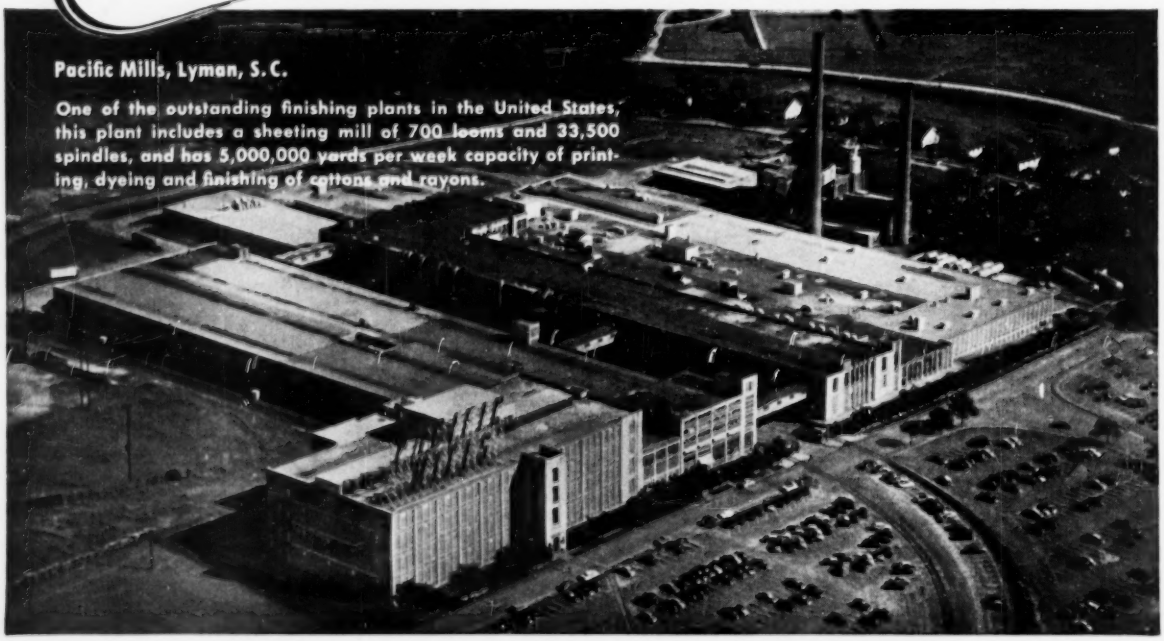


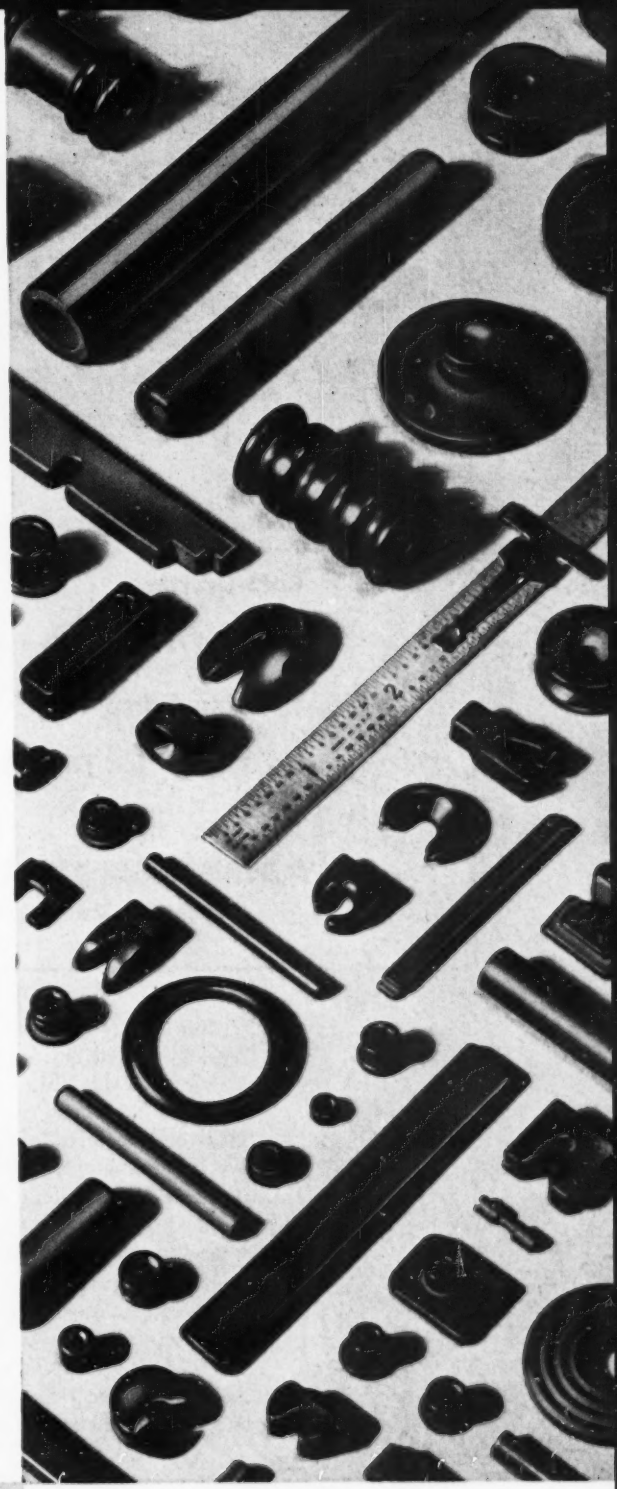
Pacific Mills, Lyman, S. C.

One of the outstanding finishing plants in the United States, this plant includes a sheeting mill of 700 looms and 33,500 spindles, and has 5,000,000 yards per week capacity of printing, dyeing and finishing of cottons and rayons.

ALSIMAG®

THREAD GUIDES ARE UNIFORM

IN DIMENSIONS, MATERIAL AND FINISH



UNIFORM GUIDES MEAN that the yarn travels over the same type of surface, the same amount of surface and in the same position on EVERY GUIDE. This assures uniform results, improved quality, controlled quality.

UNIFORM GUIDES are quicker to install, mean less down time. AlSiMag guides fit your holders perfectly.

ALSIMAG GUIDES ARE UNIFORM ALL THROUGH. These guides are homogeneous, have no surface skin to wear through. No need to worry about undetected yarn damage with AlSiMag Guides.

And AlSiMag guides stay uniform longer because they are so extremely hard and long lived. AlSiMag Guides are uniform from guide to guide and from lot to lot and from year to year.

TEST SAMPLES from our files without charge. Samples made to your specifications at reasonable cost. Test these UNIFORM ALSIMAG GUIDES and let your own records prove that they are by far the lowest in cost per pound of yarn processed.

SEE BOOTH NO. 21

YOUR CHOICE OF THREE ALSIMAG MATERIALS

AlSiMag 192 (considered standard) an ivory colored material. **AlSiMag 193** identical to 192 except that it is electrically conductive. Light blue color. **AlSiMag 513** a super-hard super-long wearing material which well justifies its cost in exceptionally difficult applications or where precise finishes must be maintained over long periods. Pink in color.

52ND YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A Subsidiary of Minnesota Mining and Manufacturing Company

CHATTANOOGA 5, TENNESSEE

SALES ENGINEERS: NORTH AND EAST: Jay S. Gosnell, 671 Broad St., Newark, N. J., Mitchell 2-8159. SOUTHEAST: Joe E. Spearman, American Lava Corporation, Chattanooga 5, Tenn., 5-3411. ALL OTHER AREAS: J. B. Shacklett, American Lava Corporation, Chattanooga 5, Tennessee, 5-3411. CANADIAN REPRESENTATIVE: Ian M. Haldane and Company, Post Office Box 54, London, Ontario, Canada. CONTINENTAL EUROPEAN REPRESENTATIVE: P. C. Huguenin Luzern, Gerbergasse 6, Luzern, Switzerland

ALSIMAG® 193 guides

(U. S. PATENT NO. 2,369,266)

Illustrated are AlSiMag 193 electrically conductive guides in satin finish. Properly grounded, these guides assist materially in the control of static electricity. The overwhelming majority of the producers and processors of synthetic yarns report this material and finish does the best job for them.

ALL ALSIMAG GUIDES ARE AVAILABLE IN SATIN OR HIGHLY POLISHED FINISH

... just to keep you posted!

WHITIN
will exhibit
10 NOTABLE MACHINES

- ★ Winder for Filling Bobbins
- ★ Roto-Drafter
- ★ Roving Frame
- ★ Spinning Frame

For American System

- ★ Up Twister for Tire Cord
- ★ Wool Spinning Frame
- ★ Drawing Frame
- ★ Roving Frame
- ★ Spinning Frame

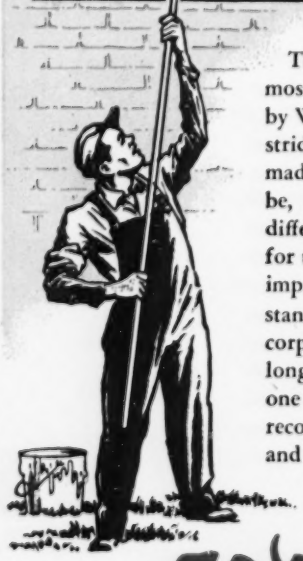
For Cotton and Rayon Systems

- ★ Ring Twister, All Purpose

These machines can be seen in operation in Booth 180 at the

AMERICAN TEXTILE MACHINERY EXHIBITION

APRIL 26 - 30, 1954 • ATLANTIC CITY, N. J.



This display of ten machines will be the most important and significant ever made by Whitin. Every visitor will find that great strides in design and engineering have been made on machinery for his mill. There will be, for instance, a new machine entirely different from anything now on the market for the process involved; another so sharply improved and advanced that it will set standards never before attainable; one incorporating unusual and distinctive features long desired but hitherto unavailable; also one that has a long and very successful mill record but never before displayed in public, and several others with a large number of outstanding improvements of many kinds that will be warmly received and applauded by the textile industry.

These ten machines whether for processing wool, worsted, cotton, synthetic or blended fibers — are the result of Whitin Research. They are being offered to you for three specific reasons: to reduce your costs, to improve the quality of your product, and to increase your profits. Each is superbly built and each will take its place as the leader in its field.

Don't miss this great display of great machinery by Whitin!

In addition to this machinery display, we will also have in Booth 24 (on the stage) an interesting exhibit of Repair Parts and Supplies.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

91 OF THE TOP 100

Better than we knew

In reading a recent independently prepared list of the 100 leading textile manufacturing firms in America, we were struck by the number of familiar names.

A close cross-check with our own files confirmed a dawning realization . . . and handed us the most pleasant surprise we've experienced in years.

Of the 100 top textile firms in the nation,
91 are users of Bahnson equipment.

We believe this impressive preference is due in great measure to the completeness of our service . . . to the policy that every mill, every job, is an individual problem with an individual solution.

The majority of these installations are completely integrated systems . . . with Humiducts or air washers, controls, grilles, dampers and most other components designed, fabricated and installed by our own textile air conditioning specialists.

Whether your mill is large or small — your air conditioning problem simple or unique — we have the engineers, the experience, the equipment for the proper solution.

Bahnson
COMPANY
AIR CONDITIONING AND HUMIDITY CONTROL
WINSTON-SALEM, N. C.

"Only minutes ago we had a fire!"

"It's all over now, but we had quite a scare. The whole place might have burned down if this fire extinguisher hadn't been handy. Funny thing is I never thought *I'd* turn out to be a fireman."

Nobody ever thinks he'll have a fire. That's why it's so important to be prepared with a battery of Kidde Dry Chemical Extinguishers. Just pick up . . . point the horn . . . and pull the trigger of a Kidde Portable. Instantly, the threatened area is blanketed with a cloud of dry chemical. Surface fires in textiles are knocked down quickly. Fires in burning liquids are extinguished without splashing.

Remember . . . for extra speed, extra efficiency and safety, insist on Kidde Dry Chemical Portables.

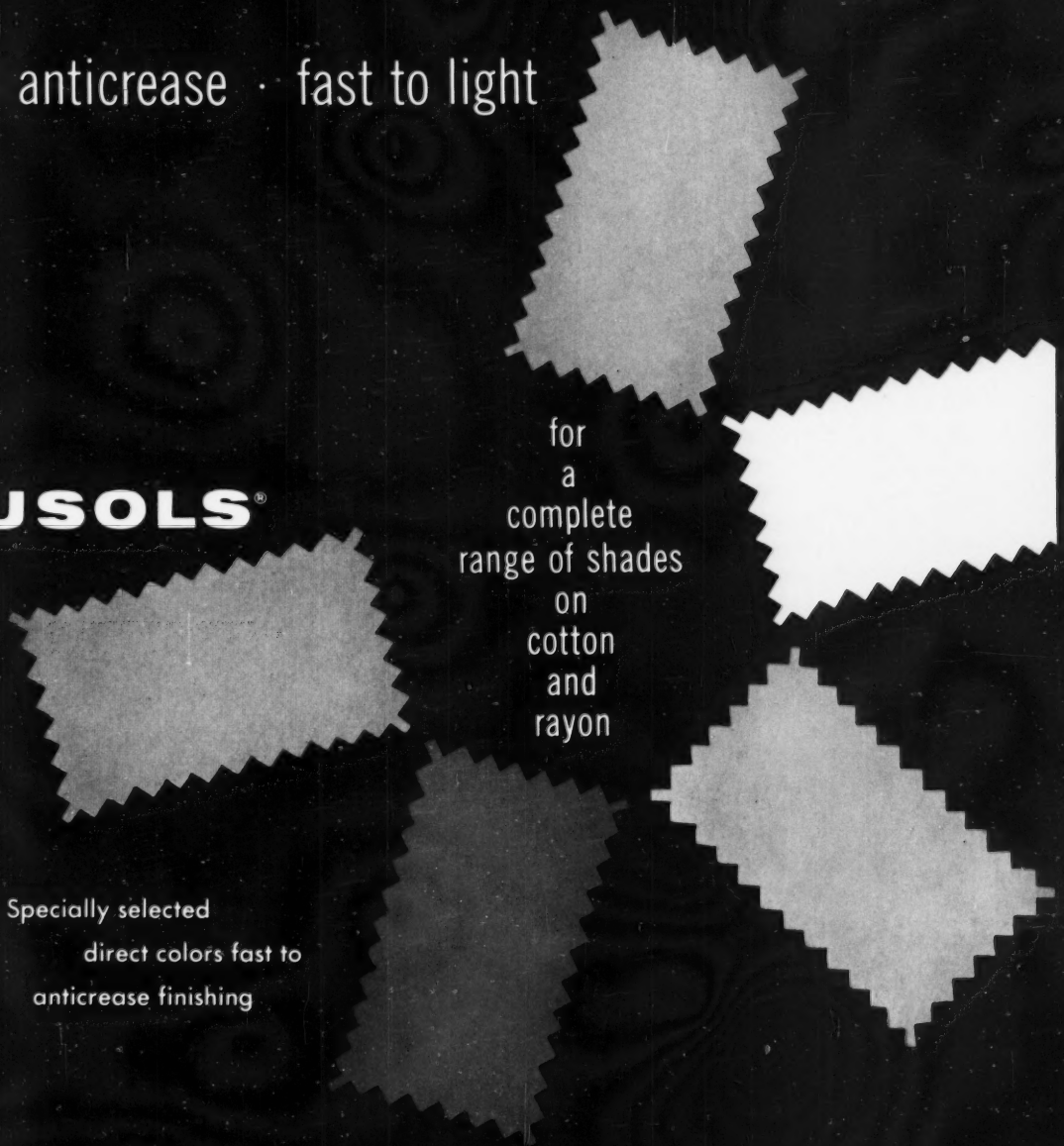
Kidde

Walter Kidde & Company, Inc.
290 Main St., Belleville 9, N. J.
Walter Kidde & Company of Canada, Ltd., Montreal—Toronto

fast to anticrease · fast to light

FASTUSOLS®

for
a
complete
range of shades
on
cotton
and
rayon



Specially selected
direct colors fast to
anticrease finishing

plus

- Light fastness—very good even in light shades
- Wet fastness—with resin treatment, fully adequate in light shades
- Simplicity of application
- Most are nonstaining on acetate and the acrylics

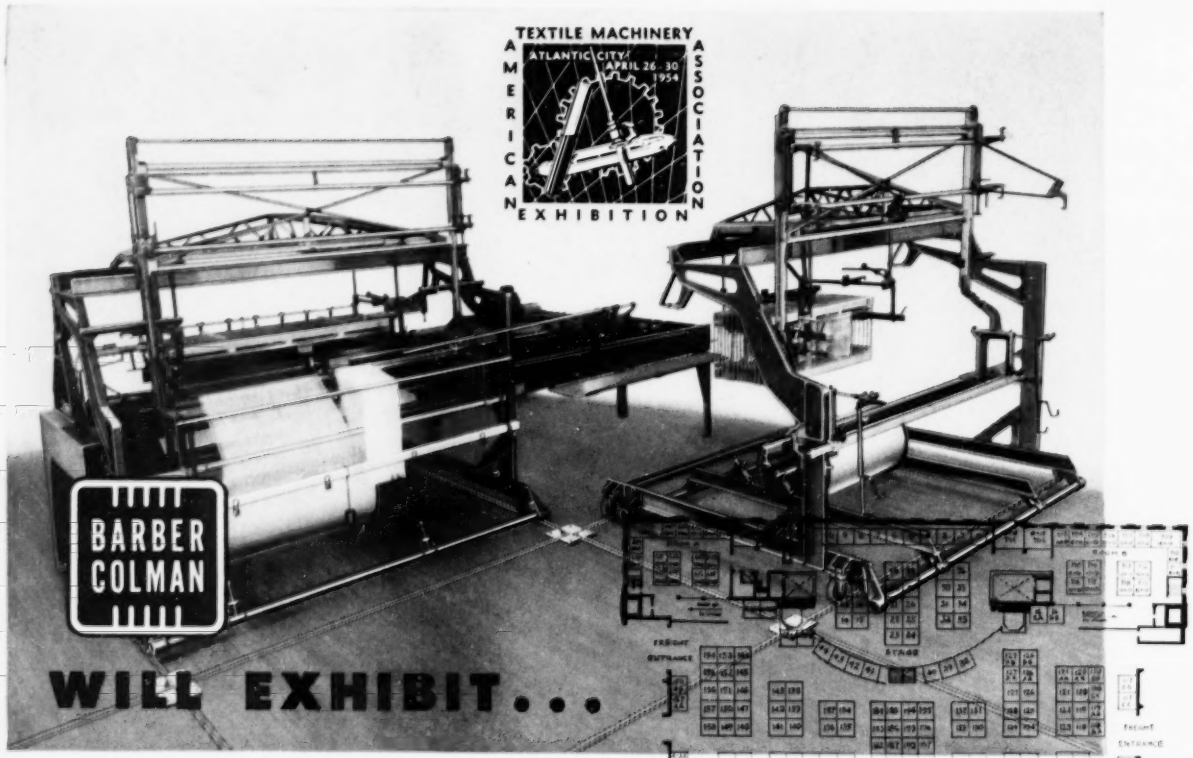
Write for samples of this interesting group of colors.
Our representative will be glad to present our new card
illustrating over 20 FASTUSOLS in various shades
including the latest additions to this line.

gdc

GENERAL DYESTUFF CORPORATION

435 HUDSON STREET · NEW YORK 14, NEW YORK

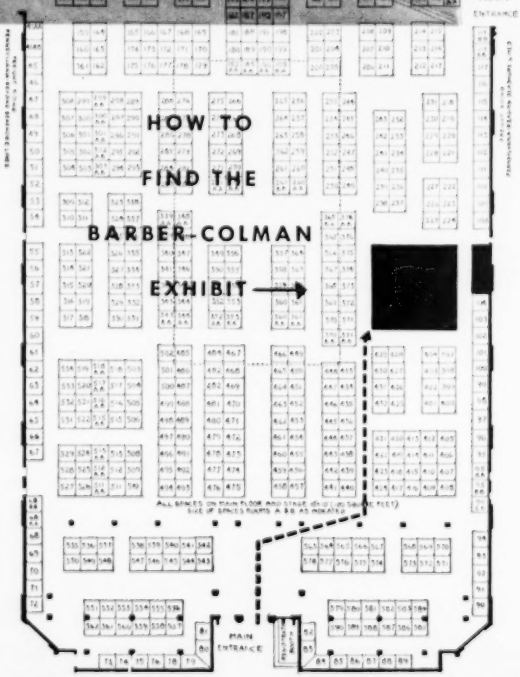
NEW YORK · BOSTON · CHARLOTTE · CHATTANOOGA · CHICAGO · PHILADELPHIA · PORTLAND, ORE. · PROVIDENCE · SAN FRANCISCO



THIS VERSATILE WARP DRAWING MACHINE

The range and flexibility of Warp Drawing Machines now available provides anyone who has warp drawing problems with a profitable solution through use of Barber-Colman equipment. See this extremely interesting and typical machine *in operation* on complicated stripe beams . . .

AT THE **1954** AMERICAN
TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
APRIL 26-30, 1954



AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

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HELANCA YARNS

are made by

DUFFY SILK with the assistance

of

HERR FLYERS

and HERR

CONICAL RINGS

You can easily adapt your present equipment for any textile fiber or blend with HERR Conical Rings. They prevent yarn breakage, give smoother, cleaner yarn, and permit heavier, more uniform doffs. You will have fewer ends down because these rings compensate for and equalize yarn tension variations. No rewicking required.

Specially designed lightweight HERR flyers that are perfectly balanced for accurate yarn control and minimum tension were instrumental in producing this special Helanca yarn in the Duffy Silk Company mill in Buffalo, N. Y.

Do what so many other quality-conscious mills have done — see how HERR equipment increases efficiency — and profits.

Ask for help on your problem.

Pease send us your literature.

NAME..... TITLE .....

COMPANY.....

ADDRESS.....

CITY..... STATE .....

HERR

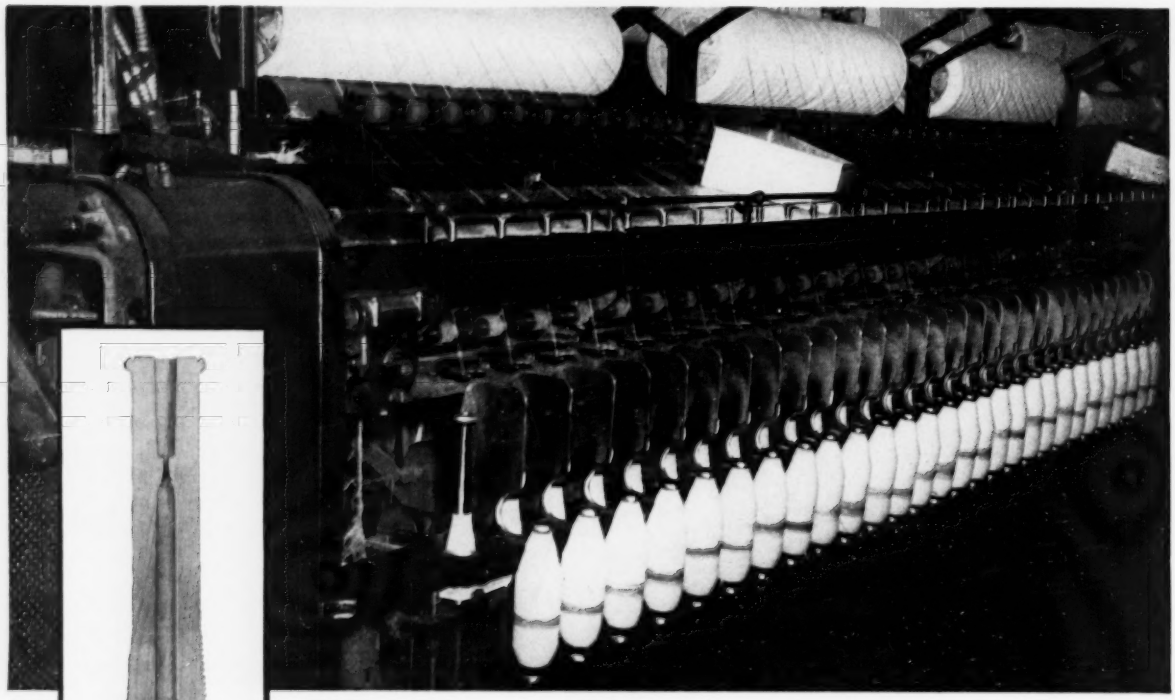
MANUFACTURING CO., INC.

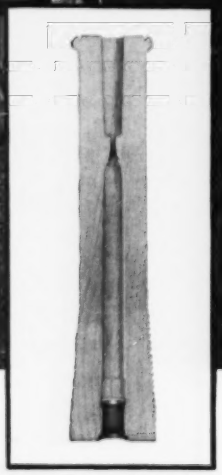
310 FRANKLIN STREET, BUFFALO 2, NEW YORK

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON AND BLENDED YARNS OF ALL TYPES

True, "Free-Running" Bobbins

Increase Production!





Cross section view showing machining details and bushings.

EXPERIENCED WORKMEN, ADVANCED METHODS AND QUALITY MATERIALS ASSURE LONGER "BOBBIN LIFE"

• You can depend on Vermont Spool and Bobbin for True, Free-Running Bobbins with less replacement costs, because Vermont Bobbins are made of seasoned hard rock maple. Each bobbin is tested for true free-running before leaving the factory. The bobbins are equipped with two uniquely crimped built-in brass bushings, one 2¾ inches from the top and one at the base of the bobbin. The center of each bobbin is reamed so that if the bobbin should swell, it will not grab the spindle.

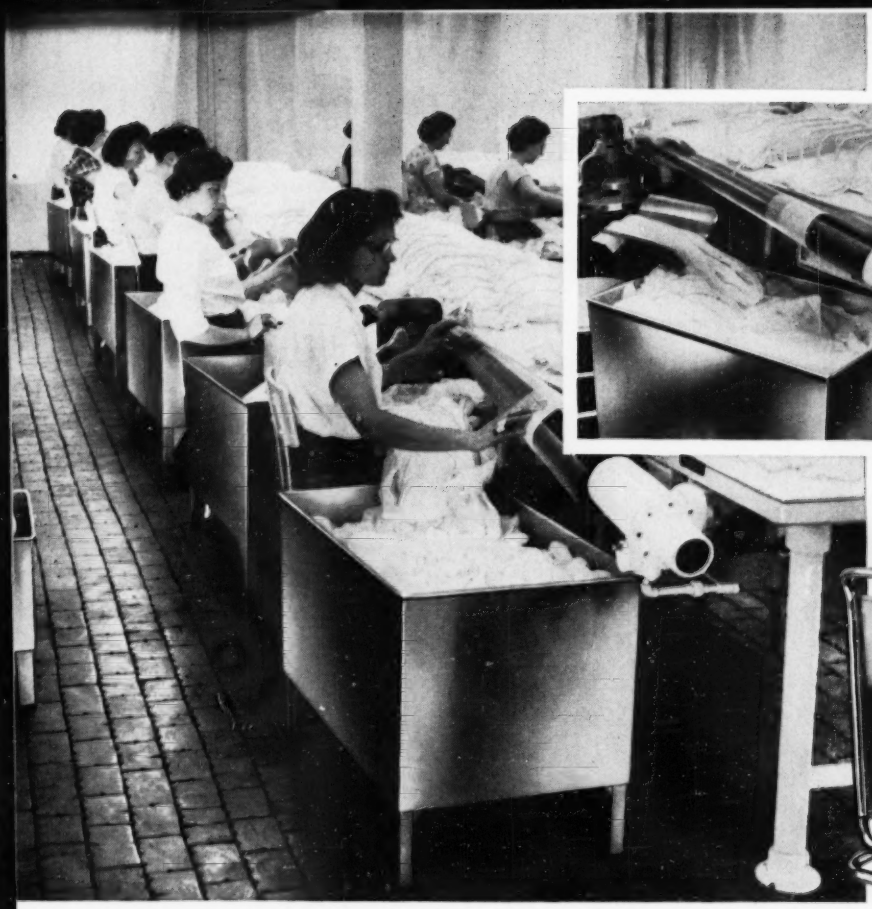
Contact your nearest Vermont Spool and Bobbin representative and compare the advantages and the low cost with the bobbins you are now using. Further information upon request.

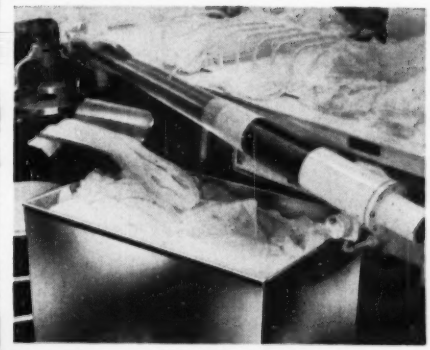
5 Features You Want

- Longer Life
- True, Free-Running
- Brass Bushings
- Skilled Workmanship
- Competitive Price

Vermont SPOOL AND BOBBIN CO.

234 SO. CHAMPLAIN ST. – BURLINGTON, VERMONT — *SUPERIOR SPOOLS AND BOBBINS SINCE 1906*





HERE hosiery at Berkshire Knitting Mills is checked carefully. Stainless Steel boxes at each examiner's right holds hosiery awaiting inspection. Small, curved Stainless tables in front of the examiners hold hosiery during inspection. At the examiner's left is the ring which holds the inspected hosiery bag, the counter lever and guard—all Stainless Steel. Inset gives a closer view of this equipment.

STAINLESS STEEL FLOOR trucks are used to transport nylon hose between departments at Berkshire Knitting Mills.

STAINLESS STEEL'S SMOOTH SURFACE

aids *"quality control"* at Berkshire Knitting Mills

THE sheer hosiery that women prefer today demands the most careful handling in the knitting mill. Many companies have found they can best protect the product—and reduce maintenance costs, too—through extensive use of Stainless Steel equipment.

Berkshire Knitting Mills, Wyomissing, Pa., one of the largest manufacturers of full-fashion nylon hosiery, takes advantage of the smooth, non-snagging surface of Stainless Steel in special equipment in the Knitting, Finishing and Inspection Departments.

Work tables at the knitting machines now have Stainless Steel tops. Material formerly used was susceptible to chipping and cracking, but since the Stainless tops have been in use the product is safe from damage.

At the Inspection stations, the holding box, work table, ring, counter lever and shield—all potential danger spots—are Stainless Steel. Not only is much of the danger of snagging eliminated, but maintenance costs are much lower than when these units had painted surfaces.

The floor trucks used to transport hosiery between departments are Stainless Steel. When wooden trucks were used, it took the constant attention of one or two men to keep them snag-free, but now these men can be used on other jobs around the plant.

Stainless Steel's smooth, non-snagging surface, by itself, will often justify the use of Stainless mill equipment—but you get far more. You get a material with superior resistance to corrosion, ease of cleaning, long life, no color carryover when used in dyeing, and many other advantages. Use it wherever you can, and be sure it's perfected, service-tested U·S·S Stainless Steel.

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • NATIONAL TUBE DIVISION, PITTSBURGH
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U·S·S STAINLESS STEEL

SHEETS · STRIP · PLATES · BARS · BILLETS USS PIPE · TUBES · WIRE · SPECIAL SECTIONS

UNITED STATES STEEL

announcing 2 important additions to the Procter & Gamble line of textile processing agents

ORVUS HYTEMP GRANULES

A blend of anionic detergent, complex phosphates and effective dispersing agent designed especially for high temperature operations.

RECOMMENDED FOR

- high temperature operations on cottons, rayons and new synthetic fibers, such as soaping-off and scouring of both fabrics and yarns. Equally efficient in continuous (rope or open width fabrics) or batch operations.

ADVANTAGES

- fast dissolving
- excellent wetting out and penetrating properties
- forms no insoluble lime soaps in hardest water
- free rinsing
- economical

KYRO AC

A brand new type modified amine condensate with soap-like action on wool.

RECOMMENDED FOR

- regular fulling and scouring of wool fabrics
- simultaneous fulling and neutralizing of acid carbonized wool
- true acid fulling followed by scouring with alkaline builders
- scouring of any fibers, yarns or fabrics where oil *removal is difficult*

ADVANTAGES

- cuts fulling time
- minimizes fulling wrinkles
- controls stretch-out in the washer
- has excellent rinsibility
- reduces flocking
- provides noticeably better body to fabrics
- fabric hand similar to soap finished goods
- selective in removing *all* kinds of oil
- whiter whites, brighter colors

at your service

We welcome inquiries about Kyro AC and Orvus Hytemp Granules and their applications to your processing operations. The services of our Textile Research Department are available to you in this connection.

Procter & Gamble

TEXTILE FINISHES SALES DEPARTMENT, CINCINNATI, OHIO

MAKERS OF PROFINE, PROXOL, OLATE AND ORVUS PRODUCTS.

Why mills like

Coloray T.M.

Courtaulds' solution-dyed rayon staple of proven colorfastness. Since '38 . . . produced in vast quantities for American and British mills

For 15 long years, mills have been processing Courtaulds' solution-dyed rayon staple on a vast scale. They like its outstanding colorfastness and its many other advantages.

The price advantage! Coloray offers substantial savings over stock, yarn or piece-dyeing . . . adds brilliance and bloom . . . even enriches the hand of the finished fabric . . . gives you a tremendous quality advantage as well.

Color blending is easy with Coloray. And the possibilities are unlimited! Over 2,000 different color effects have been achieved by Courtaulds. You can get true solids, rich heather tones, a remarkable range of shades and textures. And Coloray blends beautifully with other fibers — acetate, wool, cotton, the new synthetics.

Colors are uniform — side to side, end to end, batch to batch. No color variation at all! Color can be identical in different weights of fabric. Matching problems are gone for good.

You can buy small or large quantities — any amount of Coloray from pounds to bales.

Fly problem minimized — just follow Courtaulds' scientific sequence in running your colors, and practice simple good housekeeping in the mill.

Of course, no fiber is problem-proof. Not even Coloray. But Courtaulds knows how to solve or lighten any problem you might have. Courtaulds' unique 15-year know-how in producing and processing solution-dyed fibers is at your service, via a staff of expert technicians.

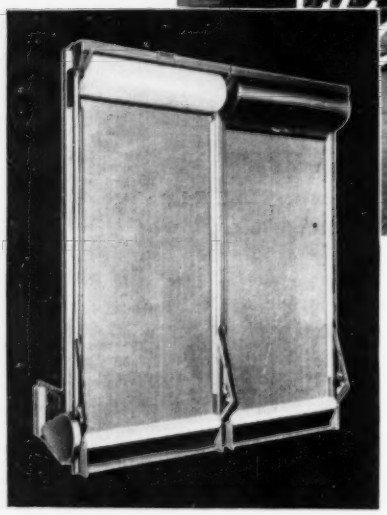
Coloray and white rayon staple are produced in Courtaulds' new plant at LeMoyne, Alabama. Thirteen basic colors are available in these deniers and staple lengths: 1½ denier — 1⅜" staple, 3 denier — 2" staple, 4½ denier — 6" staple.

For further information, write Fabric Development Dept.

COURTAULDS, INC., *first name in man-made fibers, first name in solution-dyeing*

600 Fifth Avenue, New York 20, N. Y. • Greensboro, N. C. • LeMoyne, Ala.

LINT TAKES A LICKING, HERE!



Interior view at Greenville Mills showing a portion of the 96 Auto-Airmat Lint Filters cleaning recirculated air from carpet weaving operations. Compact design of filters permits overhead installation to conserve floor space.

96 AUTO-AIRMAT FILTERS Assure Lint-Free Recirculated Air at Greenville Mills

Making carpeting by the mile presents a king-size lint problem—a problem that could result in a "fouled up" air conditioning system and many costly hours of overtime maintenance. But Greenville Mills, in planning their new Greenville, Miss., plant, found the solution in the AAF Auto-Airmat—the *only* filter that solves your lint problems automatically.

The Auto-Airmat not only collects the lint but cleans itself automatically. The Airmat media, installed in roll form at top of unit, moves downward on an endless screen and is rerolled at the base with its lint load. The rate and frequency of screen travel is automatically controlled by a pressure switch. The drive mechanism starts when resistance builds up to a predetermined maximum — and stops when sufficient clean Airmat has been introduced to reduce the resistance. It's just that simple. No expensive "week-end cleaning" to keep filter at peak efficiency—and the lint is wrapped up in the roll for easy disposal!

Lint on the loose from weaving, carding and spinning rooms can be controlled effectively with big savings in maintenance. For complete Auto-Airmat data, call your local American Air Filter representative or write for Bulletin No. 234.

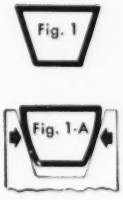
American Air Filter
COMPANY, INC.
275 Central Avenue, Louisville 8, Kentucky
American Air Filter of Canada, Ltd., Montreal, P. Q.

AAF

Why V-Belts with CONCAVE SIDES Last Longer!

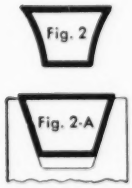
(U.S. PAT. NO. 1813698)

Prove this yourself!



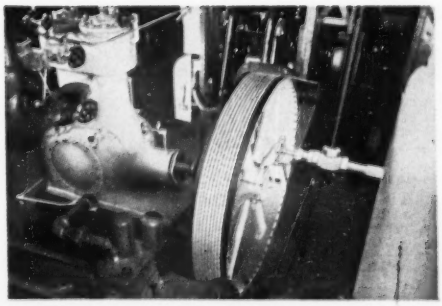
Take any *straight-sided* V-Belt (Fig. 1). Bend it—as it bends in going around a pulley. The sides will at once *bulge out* (Fig. 1-A). Clearly, those bulging sides will press *unevenly* against the V-pulley—and this causes *extra wear* at the points shown by the arrows (Fig. 1-A).

Now bend a Gates Vulco Rope with CONCAVE SIDES (Fig. 2)



Instead of *bulging*, the precisely engineered CONCAVE SIDES merely *fill out* to *fit exactly* in the sheave groove (Fig. 2-A). The sides press *evenly* against the V-pulley. All wear is distributed *uniformly* across the *full width* of the Gates Vulco Rope—and this means *longer* belt life and *lower belt costs* for you!

When you buy V-Belts, be sure to get the V-Belt with the CONCAVE Sides—the Gates Vulco Rope!



Typical Gates Vulco Rope Drive—the Gates V-Belts are built with Concave Sides to insure longer belt wear.

Gates VULCO ROPE DRIVES

REG. U. S. PAT. OFF.

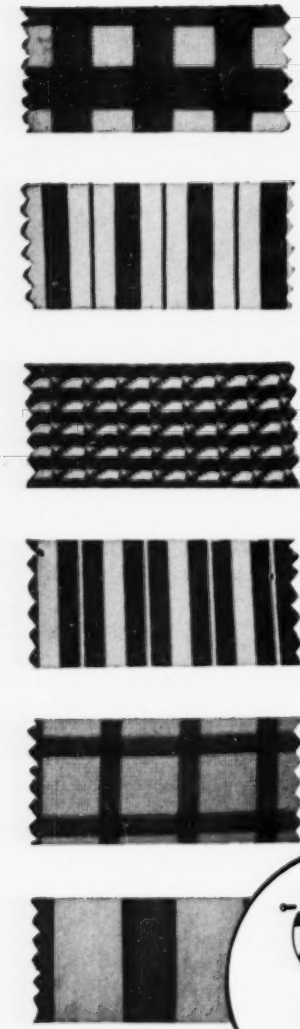
Gates Engineering Offices and Jobber Stocks are located in all industrial centers of the United States and in 71 foreign countries.

THE GATES RUBBER COMPANY
DENVER, U.S.A.

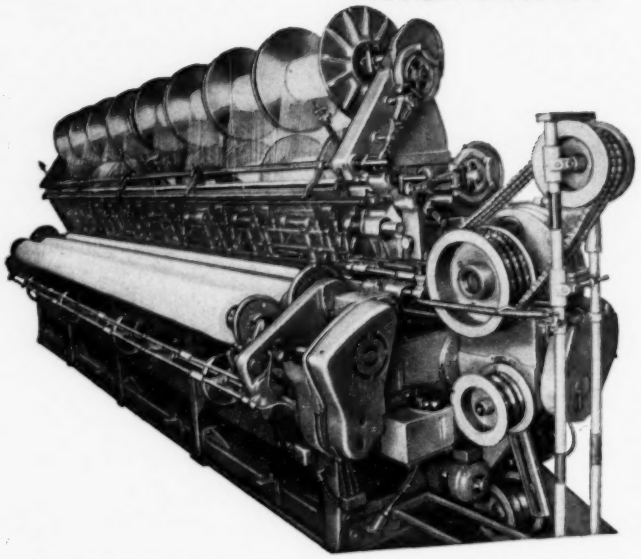
GB-943

For further information use Handy Return Card, Page 194

A few 3-bar sample swatches

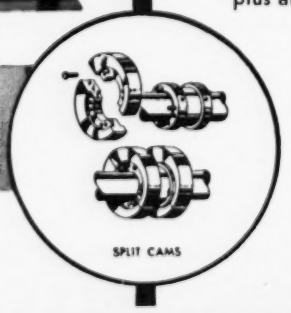


2-and 3-bar *Versatility* for BETTER MARKETS and HIGHER PROFITS



With this latest 2- and 3-bar Reiner High Speed Tricot Machine you are buying almost unlimited versatility for fabric pattern and weight range. As new fibres create new and profitable markets, you can readily adapt your production to any future development. With Reiner machines you buy a new high standard of perfection in tricot knitting, plus unexcelled quality at highest speeds, economy, reliability and ease of operation—all mill proved and a matter of record.

Available with pattern wheel or chain link drive. By means of split cams and other provisions the Reiner 3-bar machine can be run as 2-bar units with speeds stepped up accordingly. Automatic oil feed—Automatic beam let-off—Direct take-up and needle-down disc attachment—All gauges—Knitting widths 168" and 84" Remember: Only Reiner offers this convertible unit—plus all types of warpers and creels.



TO PRODUCE TRICOT AT ITS BEST YOUR BEST BUY IS REINER!

THE REINER LINE

Tricot Machines (2- and 3-bar, 84" and 168")—Simplex (Double Knit) Machines—Raschel Machines—Magazine Creels—Single Type Creels—Truck Creels—66 and 72 gauge (4 section) Full Fashioned Hosiery Machines—Automatic Schiffli Embroidery Machines (10 and 15 yards)—Bobbin Winding Machines *(for Stitching or Quilting)—Ready Spare Part Service for all Reiner machines.*

1903 50th Anniversary 1953

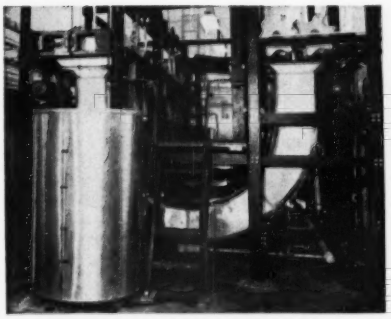
ROBERT REINER INCORPORATED

10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 — 550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY

HERE'S THE COMBINATION
for Profitable Bleaching



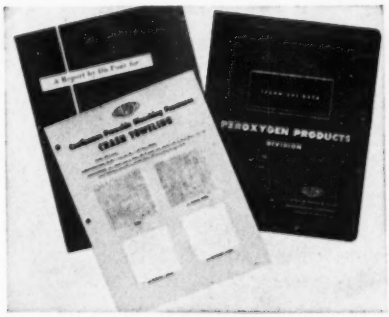
The "Junior" unit—typical of the efficient systems which have modernized bleaching.

DU PONT CONTINUOUS SYSTEMS

Speedy, economical, continuous peroxide bleaching systems for production of high quality work in large and small mills. Capacities range from 500 to 7,500 lbs./hr. Each system is easily adapted to suit requirements.

ALBONE® HYDROGEN PEROXIDE

A stable, uniform product of high purity. Available quickly from stocks in principal cities. Shipped in drums or tank trucks and tank cars for plant storage systems.



The complete bleaching service includes operating manuals, bleaching surveys and specific confidential reports for individual operations or mills.

DU PONT TECHNICAL SERVICE

Bleaching specialists located in important textile centers can give prompt advice and expert assistance—recommendations which can help you operate your bleaching process efficiently and economically.

SEND FOR FREE ILLUSTRATED BOOK about Continuous Bleaching. It describes typical installations in leading mills and all phases of the process. Just fill out and mail the coupon below for your copy.

DU PONT CONTINUOUS PEROXIDE BLEACHING

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

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Please send me more information about Du Pont Continuous Peroxide Bleaching Systems—including your free book.

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Make NATIONAL your source for travelers. We offer over 18,000 different weights, sizes, and styles . . . also special designs to meet special requirements. No matter what fibres you are running, it pays to consult with National. Full stocks are maintained in Pawtucket and Charlotte: U. S. Standard (American, Hicks, Wilson, Elliptic) and Wentworth (Double Duty or P. B., Gravity, Gravity Express, Bal-Ellipsoid). National Ring Traveler Co. and Sterling Division, Pawtucket, R. I. and Charlotte, N. C.

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Sterling
RING TRAVELERS

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OLDEST AND LARGEST MANUFACTURER OF RING SPINNING AND TWISTING TRAVELERS IN THE UNITED STATES

Setol Cleanser HAS WHAT IT TAKES TO MACHINE-SCRUB OILY FLOORS—

Faster cleaning action!

Cuts operating time of the scrubbing machine

Finnell 213P Scrubber-Vac

Applies cleanser, scrubs, and picks up — in ONE operation!

Because *Setol* is specially compounded for the greater speed of *combination-machine-scrubbing*, it must *and does* work faster than average alkaline cleansers. *Setol* saponifies *and emulsifies* grimy oil and grease *instantaneously*. The wetting agent in *Setol floats the oil* for fast, easy, *and thorough* removal by the vac of a *combination machine* or with a separate vac unit. And because *Setol* stays fast-acting longer—does not spend its strength quickly as do ordinary oil and grease solvents — less is required to clean a given area. Thus *Setol* saves on materials and, by speeding the cleaning process, cuts operating time of the scrubbing machine . . . reduces labor costs . . . and saves on brushes. Best of all, *Setol gets floors oil-free clean!* Also acts as a disinfectant (contains pine oil), and leaves a pleasant, clean aroma.

- **A constant, fast-acting cleanser for machine-scrubbing cement, wood, wood block, metal, stone, and terrazzo floors**
- **Consistent use on cement floors prevents cement dusting . . . provides a finish that helps seal out waste materials**

For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1302 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES

what's **corn** doing at the north pole?

CORN PERFORMS VITAL FUNCTIONS . . . IN MANY UNEXPECTED PLACES

Wherever modern man goes . . . corn follows him in one form or another. Corn is with him in his food in many forms, including corn syrup, starches and energy-giving dextrose. Corn sugars helped tan the leather in part of his clothing. Specialized corn starches helped cast the molds for much of his metal equipment. These are but a few of the numerous examples of how continuous basic research in corn helps a host of industries . . . helps you.

CORN PRODUCTS IN TEXTILES

For the textile industry Corn Products Refining Company supplies a variety of specialized starches, gums and dextrins . . . recommended ingredients for many textile processes.

We offer quality in volume supply unexcelled in the field. Complete technical service is available without cost or obligation. If you have a production problem why not check with Corn Products. We welcome your specific technical inquiries.

Manufacturers of
GLOBE®
brand dextrins, gums
GLOBE®
brand starch
EAGLE®
brand corn starch

CORN PRODUCTS REFINING COMPANY, 17 Battery Place, New York 4, N. Y.

Could you use more efficiency?

If your weave room is air conditioned with an evaporative cooling system, you can step up your efficiency even more. And we think we have just the machine to do it!

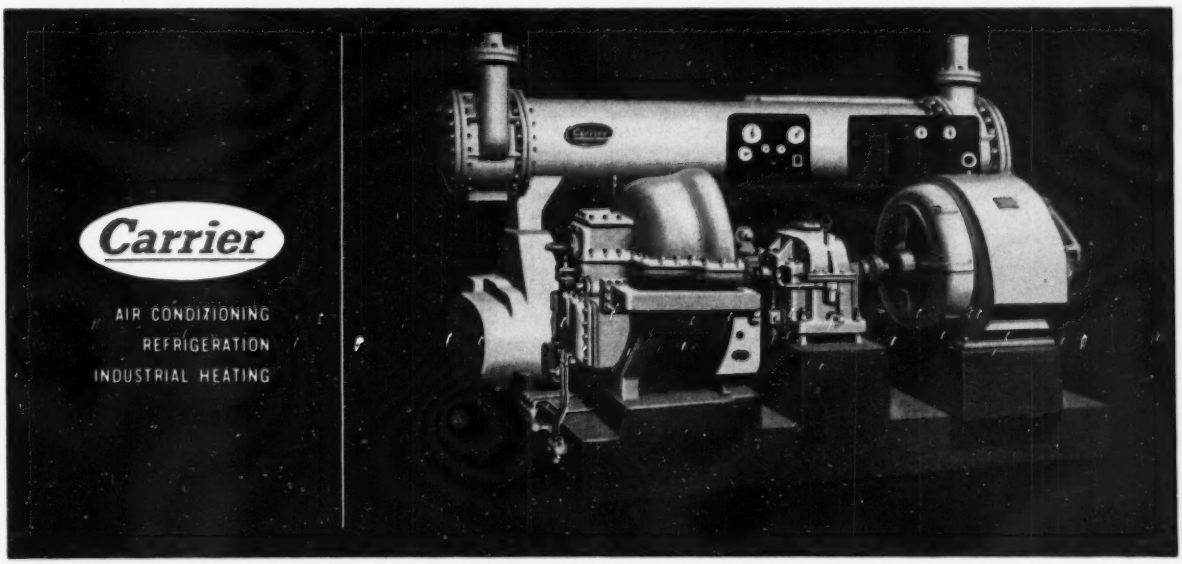
It's a Carrier Centrifugal Refrigerating Machine. It's the machine that supplies refrigeration for air conditioning. So that you have *absolute* control of both temperature and humidity—regardless of outside conditions.

Without positive control of mill conditions, high-speed looms can't perform efficiently. Fluctuations in temperatures cause expansion and contraction of metal parts. Tolerances are violated, causing sheering and smashing, with lots of down-time.

And, of course, modern fibers require the absolute control that modern air conditioning gives. You'll find that air conditioning by refrigeration makes sensitive acetate and viscose yarns easier to handle, with little fuzzing and shredding.

So in the end, weave rooms with modern air conditioning consistently operate with top efficiency.

Your evaporative cooling system can have refrigeration added to it. For more information, write Carrier Corporation, Syracuse, New York. Or call your nearest Carrier office.



The Carrier Centrifugal Refrigerating Machine. In 30 years, Carrier has built more than anybody else. Each of the existing 2500 machines is backed by the largest national service organization in the industry.

LARGE SOUTHERN MILL SWITCHED TO TANNATE SPECIAL CHECKS

This large southern mill has 2700 model "E" Draper looms weaving print cloth, sheeting and drills. They first tried Tannate Special Check Straps eight years ago and got such phenomenal life that they decided to standardize on Tannate 100%. In a recent report, they told us they use one third the number of straps previously used.

Tannate Special Check Straps last longer because they're stronger. In the first place, Tannate Special leather is made from the finest imported and domestic hides available. Only the center stock is tanned. In addition, an exclusive process that compresses considerably more leather fibres into the area designated by thickness specifications adds greatly to the strength of this leather for check straps.

You'll get other advantages when you buy Tannate Special check straps too. For example, Tannate Special is a hairless leather. So you see, you just can't buy Tannate Special straps with hidden imperfections. What's more, you don't have to worry about hair wearing off and getting into the cloth, making seconds. And now, the grain of Tannate Special leather is specially treated to give it a smooth satin-like finish that makes a better friction surface. That means better on-the-job performance.

So, no matter what kind of checks you are now using, we think it will pay you to try Tannate Special Check Straps. We won't promise to cut your check strap bill by as much as 60%, but we do believe we can reduce your costs considerably.

Tannate Special leather is cut to meet your requirements in our patented BiCut design, straight or curved, all available in four different weights, three degrees of firmness. Endless checks also made from Tannate Special Leather are available single or double ply in two weights.

Get your Free copy . . .
of Rhoads 32 pg. catalog of Textile leathers
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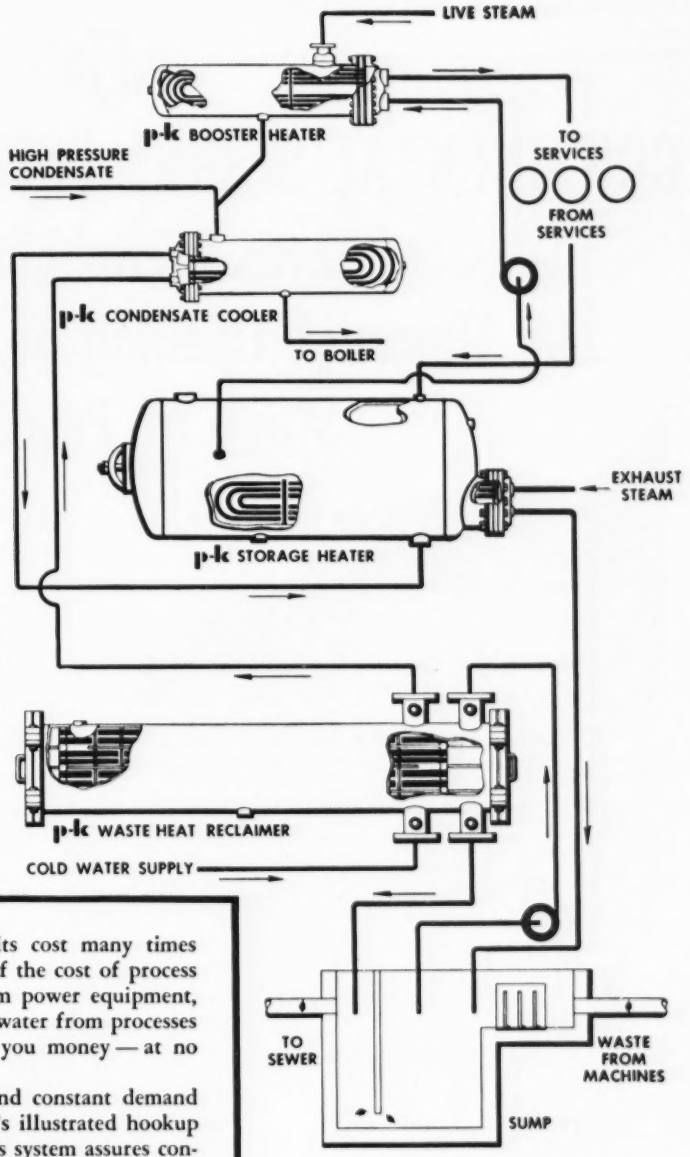
RHOADS
INDUSTRIAL LEATHERS

ATLANTA • PHILADELPHIA • NEW YORK • CHICAGO

how to exchange heat and save half your fuel dollar



p-k hot water supply system — one of numerous variations — for maximum heat recovery in processes using large quantities of hot water.
Whether your operation is in the textile, chemical, laundry, pulp and paper fields, or any field where hot water is required, p-k can recommend the proper recovery system for optimum heat balance.

p-k equipment can earn its cost many times over, save 50% and more of the cost of process heating. Exhaust steam from power equipment, or condensate or waste hot water from processes — can go to work saving you money — at no added operating cost.

When there is a large and constant demand for hot process water, p-k's illustrated hookup No. 1 is recommended. This system assures control of temperatures, pressures and velocities at all plant stations. Substantial increases in production can be made without additional equipment.

p-k reclaimers, storage heaters, condensate coolers, booster heaters, etc. are available in many standard sizes and types to meet most industrial or commercial requirements.

Learn more about the sure savings available to you — write now for complete information. Ask for Cat. No. 310. Further information and engineering assistance will be gladly provided without obligation.

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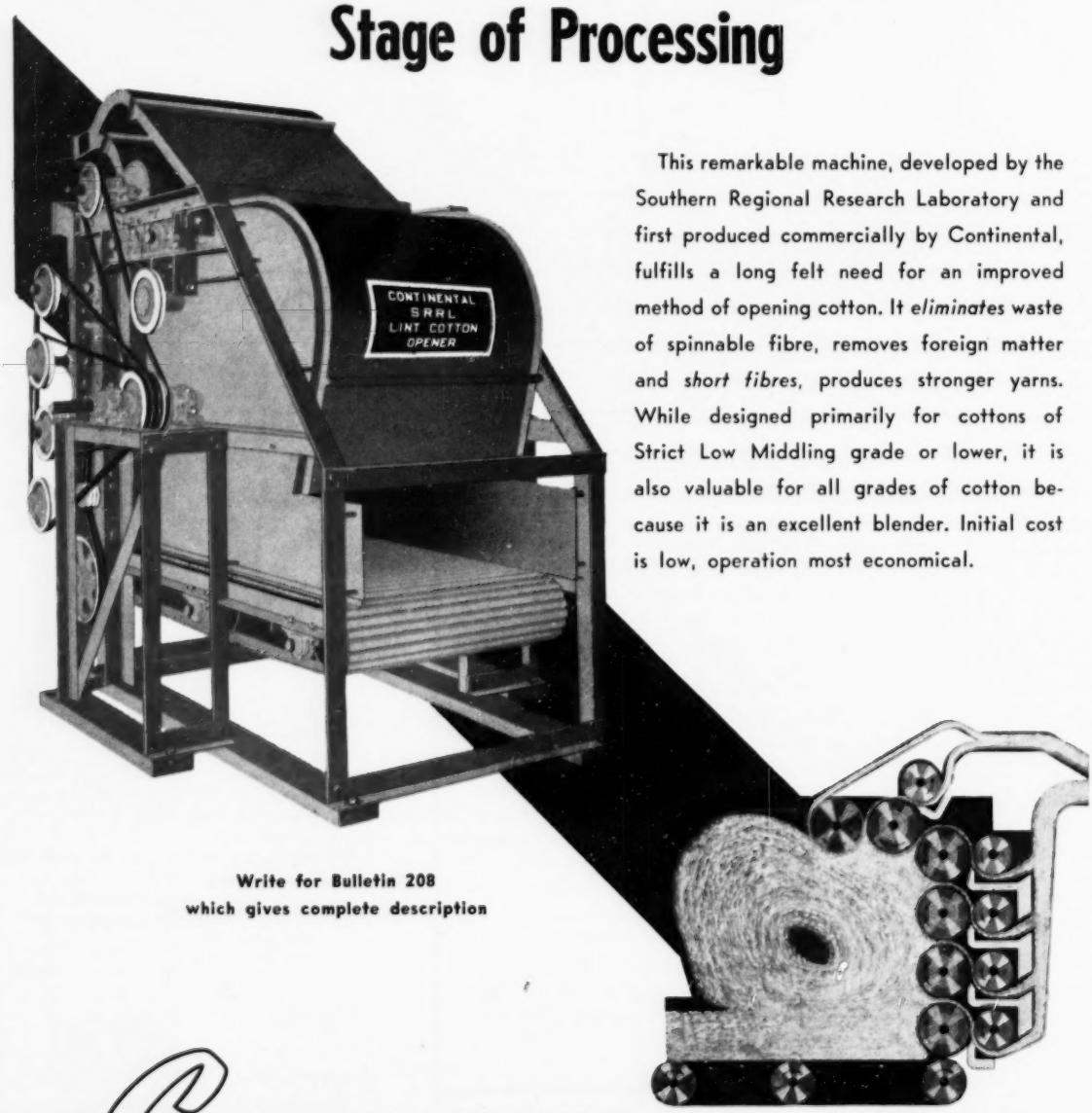
1916

101 Park Avenue, New York 17 • Railway Exchange Building, Chicago 4 • 1700 Walnut Street, Philadelphia 3 • 96-A Huntington Avenue, Boston 16 • and other principal cities

CONTINENTAL'S SRRL LINT COTTON OPENER

Saves Spinnable Fibre by Thorough Opening of Cotton at First Stage of Processing



This remarkable machine, developed by the Southern Regional Research Laboratory and first produced commercially by Continental, fulfills a long felt need for an improved method of opening cotton. It *eliminates* waste of spinnable fibre, removes foreign matter and *short fibres*, produces stronger yarns. While designed primarily for cottons of Strict Low Middling grade or lower, it is also valuable for all grades of cotton because it is an excellent blender. Initial cost is low, operation most economical.

Write for Bulletin 208 which gives complete description

Continental GIN COMPANY

BIRMINGHAM, ALABAMA

ATLANTA • DALLAS • MEMPHIS

News in Brief

Future in Opening and Picking. R. J. McConnell, Whitin Machine Works, recently stated that there will be no radical change in picking machinery in the near future but without question "we are on our way to developing a new system of opening and picking that will do the job required in a much more efficient manner and requiring less machinery and floor space than is now being used."

New Orlon Garment Use. For the first time Du Pont Orlon is being used for men's outergarments in 100 per cent constructions. A hounds' tooth check fabric of 100 per cent Orlon acrylic fiber will be in the menswear market this season in sport coats, slacks, and robes. The clothing will be offered in New York by De Pinna. At the same time coats and slacks will go on sale at L. S. Ayres in Indianapolis.

The Wool Problem! Secretary of Agriculture, Ezra Benson, recently stated: "American wool growers do not produce nearly enough wool to supply our domestic needs—yet large quantities of American wool are going into storage through the price support operations of the Commodity Credit Corporation—and are remaining there unused. With domestic wool prices supported at 90 per cent of parity, the American producer is losing more and more of his market to foreign producers. During the past year we have had a tariff on wool of 25½ cents per pound. It appears that the present program is not effective in providing attractive returns to our wool growers. With prices supported at existing levels, many of our sheep and wool producers have been going out of the business. Sheep numbers fell from 49 million head in 1942 to a record low of 26 million in 1950. Although they went up slightly in 1950 and 1951, they have declined again in the last two years."

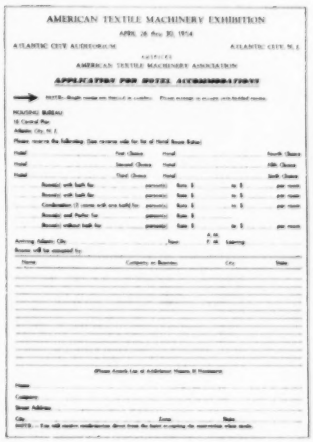
You May Get Caught Sleeping in a "Jitney"

during the American Textile Machinery Exhibition in Atlantic City if you don't soon make your reservation for hotel accommodations.

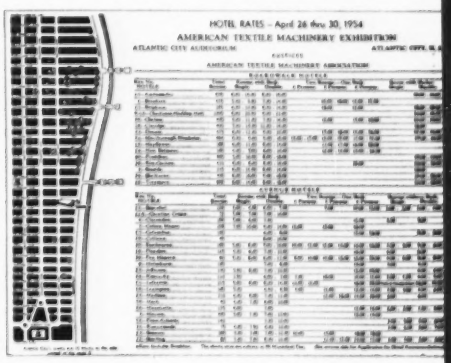
Although hotel accommodations in Atlantic City, N. J., are considered ample, the American Textile Machinery Exhibition Committee urges that reservations be made as early as possible.

Four months before the big show, to be held April 26-30, as many hotel rooms had been reserved as were in 1950 just a month prior to the event, the Committee reports.

Hotel reservations will not be honored except through Atlantic City's Convention Housing Bureau, 16 Central Ave., Atlantic City. Hotel reservation blanks listing all hotels and giving rates (see accompanying illustrations) may be obtained from the Bureau, or from Albert C. Rau, Manager of American Textile Machinery Exhibition, 322 Park Square Bldg., Boston, Mass.


AMERICAN TEXTILE MACHINERY EXHIBITION

APPLICATION FOR HOTEL ACCOMMODATIONS


HOTEL RATES – April 26 thru 30, 1954

AMERICAN TEXTILE MACHINERY EXHIBITION

ATLANTIC CITY AUDITORIUM

OFFICES

AMERICAN TEXTILE MACHINERY ASSOCIATION

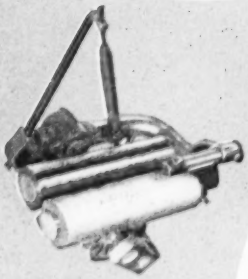
Vacation Pay by Decree. The N. C. Supreme Court has decreed that a group of Charlotte people, formerly employed by the Calvine Cotton Mills Plant No. 1 (now closed), must be given vacation pay by the company. The court ruled that "vacation pay constitutes wages," and added that "homespun honesty and simple justice demand they should receive

Mount Hope PRECISION GUIDERS

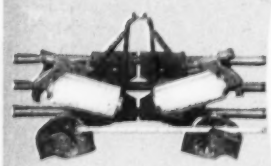
See Our Money Saving Devices

at Booths 370 & 371, A.T.M.A. Exhibition April 26-30.

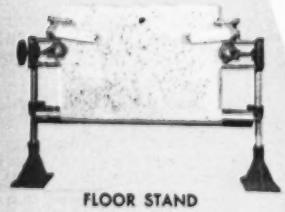
TEXTILE MACHINERY EXHIBITION — ATLANTIC CITY — APRIL 26-30 — 1954 — AMERICAN ASSOCIATION



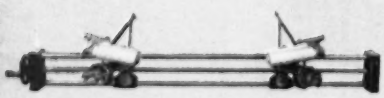
GUIDER HEAD



NARROW FABRICS GUIDING

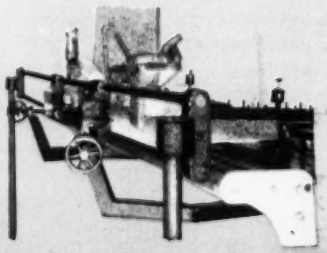


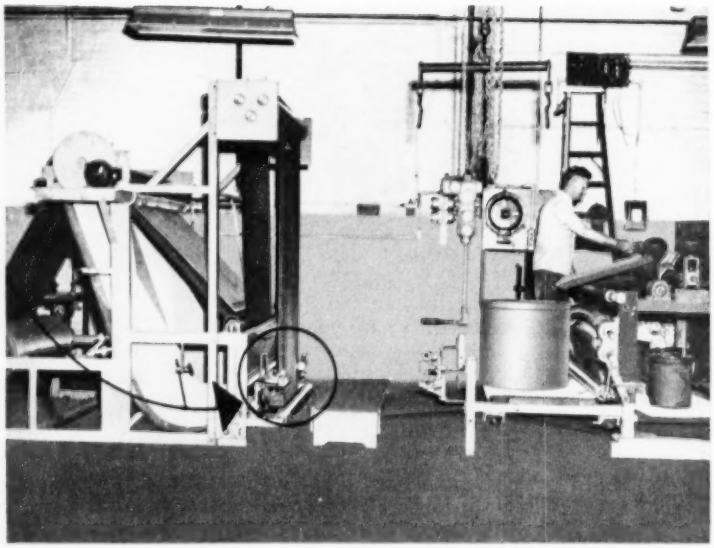
FLOOR STAND



BRACKET STAND

TENTER STAND CLIP TYPE, OR PIN TYPE WITHOUT ELECTRIC FEEDERS





Coating Range

Above picture shows following Mount Hope Equipment feeding material to a coating range.

Mount Hope Precision Guiders accurately guide material into coating range. Note also: Continuous Roll Feed with double center bar let-off; Open Width Tension Device to maintain exact tension required; Slack Selvage Eliminator does away with uneven coating. Free Wheeling Expanders completely eliminate costly wrinkles and creases. Duplicate this range for highest quality coating at lowest cost!

Write for FREE bulletin — Tell us your production setup. Ask for a Mount Hope Engineer to call. No obligation!

MOUNT HOPE MACHINERY COMPANY

15 FIFTH STREET, TAUNTON, MASS.

Will You Pass Your March 15 Exam?

Uncle Sam has a test in store for you — one that will flatten your pocketbook if you flunk it. The examination date is the "15th day of the third month after the close of your taxable year" — March 15th for most taxpayers because they use the calendar year.

Your exam paper is the federal income tax form. To learn some facts which may help you pass, try your hand on these ten questions. If you don't get them all right, you are in danger of overpaying your taxes.

This test is based on material from the American Institute of Accountants, the national professional society of certified public accountants.—The Editors.

(Answers on page 207)

1. Your wife did some work as a substitute teacher which brought in less than $600. She wants a refund of the tax withheld from her pay. You should —a. Let her file a separate return to get her refund, then file your return claiming exemptions for both of you.—b. Advise her to file a joint return with you.—c. Each file a separate return claiming one exemption.

2. You obtain three loans; the first to buy business supplies, the second to make repairs for a tenant, and the third to pay your son's college tuition. You can deduct—a. The interest on the first loan.—b. The interest on the first and second loans. —c. The interest on all three loans.

3. You own several types of securities. Which of the following is taxable?—a. Stock dividend (common stock distributed to common stockholders).—b. Interest on state and municipal bonds.—c. Interest on bonds of a tax-exempt educational institution.

4. You are the sole proprietor of your business. Your daughter worked for you part time and earned $595. She filed a return to get a refund of tax withheld from her wages. You can—a. Not take a deduction.—b. Deduct her wages as a business expense and take a $600 exemption for her.—c. Deduct her wages as a business expense, but not take the $600 exemption.

5. Your inventory pricing method can be changed only— a. If you are on a calendar year basis.—b. By permission of the Treasury.—c. Once during the life of your business.

6. You gave your church a corner lot for which you paid $500. Its value at the time of your gift was $1,500.—a. You must pay a capital gains tax on the $1,000 increase.—b. You may claim a deduction of $500. —c. You may claim a deduction of $1,500.

7. Which of these is **not** a requirement in claiming the $600 exemption for a dependent: — a. The dependent must be a close relative as defined in the tax instructions.—b. Must not have had $600 or more of income.—c. Must not be claimed as an exemption by his or her spouse.—d. Must be a citizen of the United States.—e. Must have received more than half his or her support from you.

8. Your business is a partnership. Your partnership tax year —a. May be a fiscal year ending the last day of any month.—b. Must be the same as your personal tax year.—c. Must be the calendar year.

9. You recently sold 25 shares of stock for a gain of $100. You had held these shares just under six months. You had no other "capital" transactions. Your tax on this transaction—a. Is the same as for ordinary income.—b. Can not be more than the capital gains ceiling of 26%. —c. Is based on 50% of your capital gain.

10. You have made a gift of stock to one of your children. If the dividends from this stock amount to less than $600—a. The dividends must be reported, but no tax is imposed.—b. They are taxed as a capital gain.— c. They do not deprive you of the dependency exemption for the child.

(Answers on page 207)

that part of their vacation pay they had earned when their employment was terminated."

Taft-Hartley Changes? Pressures to change the Taft-Hartley law will be enormous in 1954. Some of the pressure will come from labor leaders and some from politicians up for reelection. Part of the pressure is generated by a feeling that labor unions raise wages and Taft-Hartley may stand in the way.—*Economic Intelligence.*

News in Brief

Canada to Curb U. S. Goods. The Canadian Customs Act has been amended to permit curbing of American-made garments and fabrics when imported at cut prices to clear end-of-season or end-of-line goods. The Revenue Minister emphasized that the change did not alter Canada's basic trade policy.

More Space for 1954 Greenville Show. A new brick and steel building adjacent to Textile Hall in Greenville, S. C., is to be built by summer to provide an additional 14,000 feet of exhibit space for the 1954 Southern Textile Exposition, the industry's biennial machinery show. This expansion of facilities will bring the overall exhibit space to about 80,000 sq. ft., with the buildings extending the length of a city block and providing entrances on two streets. The 1954 event is scheduled for the week of October 4.

Cellophane Anti-Trust Suit Dismissed. Chief Judge Paul Leahy in U. S. District Court in Wilmington, Delaware, held that the government's complaint in the cellophane anti-trust suit against Du Pont should be dismissed. Judge Leahy stated as his conclusion of the law: "The facts destroy the charges here made. There has been no monopolization or conspiracy or combination or attempt to monopolize shown. The record reflects not the dead hand of monopoly but rapidly declining prices, expanding production, intense competition stimulated by creative research, the development of new products and uses and other benefits of a free economy. Du Pont nor any other American company similarly situated should be punished for its success. Nothing warrants intervention of this court of equity. The complaint should be dismissed."

Productive Activity Improvement. The nation's capital goods

the *AUTOMATIC* answer to DIVERSIFIED TEMPERATURE REGULATION PROBLEMS...

JOHNSON CONTROL

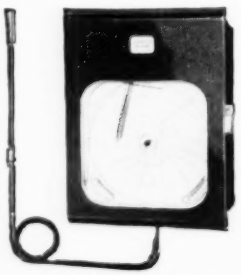
Owens-Corning Fiberglas Corp., Anderson, South Carolina. Lockwood-Greene Engineers, Inc., architects and engineers, New York and Spartanburg, S. C.; Carrier Corporation's Atlanta Office, air conditioning contractors.

Cloth from sand? Yes! That is what happens at the Owens-Corning Fiberglas plant at Anderson, South Carolina. Here, temperature and humidity conditions throughout the entire plant are controlled by Johnson.

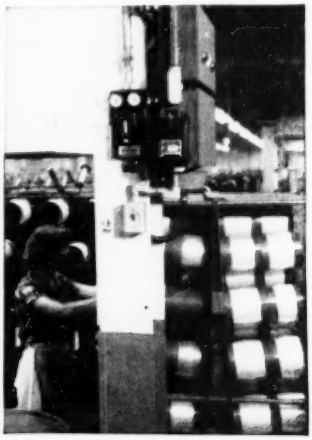
The Carrier centrifugal refrigeration machine, which furnishes the chilled water for cooling in connection with the air conditioning, is under the control of a Johnson T-1000 Single-Pen *Record-O-Stat*. In addition to acting as an accurate temperature controller, this instrument also insures that a continuous record of the temperature of the chilled water is always available for reference. This is important where industrial processes are dependent upon the space conditions. In the forming and finishing rooms, space temperatures are maintained at precise levels by Johnson T-300 Master and T-901 Submaster Thermostats which operate Johnson Valves and Damper Operators.

Finishing rooms, offices, cafeteria, shops, first aid room, kitchen and locker rooms are controlled by Johnson *Individual Room* Thermostats. All of the Johnson apparatus, engineered for the most exacting results, is combined into a complete Planned-for-the-Purpose, Installed-for-the-Purpose Control System. Another outstanding example of the adaptability of Johnson Control!

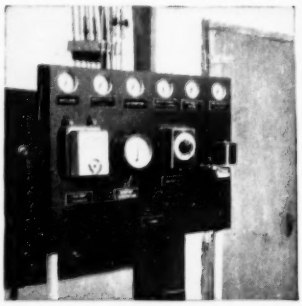
Whether *your* plant calls for the solution of intricate temperature and humidity control problems or merely the simple application of a single controller, call a Johnson engineer from a nearby Branch Office and get the benefit of over 60 years of experience offered by the *only* nationwide organization devoted exclusively to manufacturing, planning and installing automatic temperature and air conditioning control systems. JOHNSON SERVICE COMPANY, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.



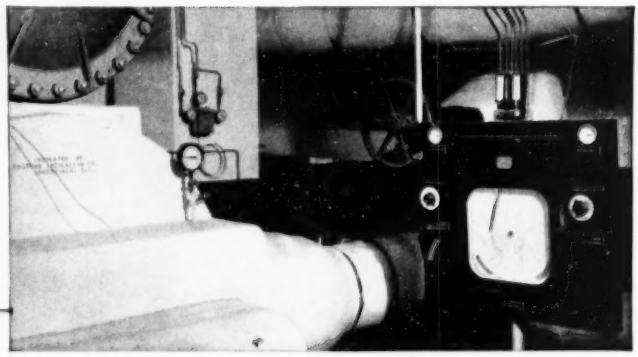
T-1000 Single-Pen *Record-O-Stat*



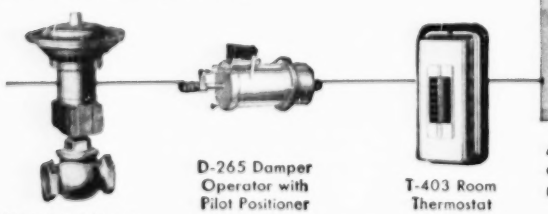
Temperatures in manufacturing and other areas are controlled by Johnson T-400 series Room Thermostats, one of which is shown above.



From control panel at left, a Johnson T-800 Thermostat controls the dew-point temperature of air leaving the air washer for the air conditioning unit serving a processing area.



Above, a Johnson T-1000 *Record-O-Stat* regulates and records the temperature of the chilled water leaving the Carrier centrifugal refrigeration machine.



V-104 Coil Valve

D-265 Damper Operator with Pilot Positioner

T-403 Room Thermostat

JOHNSON *Automatic Temperature and Air Conditioning* **CONTROL**

MANUFACTURE • APPLICATION • INSTALLATION • SINCE 1885

productive activity in 1953 is expected to total $58 billion. This includes production, transportation, distribution, and servicing of capital plant and equipment. Employment created by these activities is expected to reach 8.2 million. For the year 1952, capital goods activity totaled $54 billion. These figures are based on projection of a study published by the Council for Technological Advancement on the size and structure of the American capital goods industry.

Nylon Smuggling in Belgium. In Belgium there is still a problem of smuggling nylon stockings, and before an Antwerp court recently customs officials and seven business men were accused of bringing into the country 233,836 pairs without payment of duty. The Belgian authorities claimed 35,000,000 B francs compensation.

Canvas Goods Research Fellowship. An industry fellowship for research on cotton textiles has been established by the National Canvas Goods Manufacturers Association at the Southern Regional Research Laboratory (USDA) in New Orleans. The purpose of the fellowship is to conduct investigations aimed at improving the performance of canvas goods and sewing thread in awnings, tents, and tarpaulins.

Tumble Drying Noteworthy. Tumble drying of textiles is becoming more widespread, particularly following laundering and drycleaning. The broader adoption of household dryers is another aspect of this same development. So far as shrinkage is involved there are new considerations apparently arising as a result of the greater use of tumble drying. Not enough facts are available, but it appears that the Subcommittee on Dimensional Change will want to investigate the behavior of textiles in tumble drying and get the facts for further study, according to the AATCC.

Nylon Tricot Shirts in Canada. A Canadian textile industry "first" that has proved popular during recent months is the nylon tricot shirt for men. According to one Canadian source, the industry in Canada developed this shirt to fit a particular need and has watched demand steadily increase.

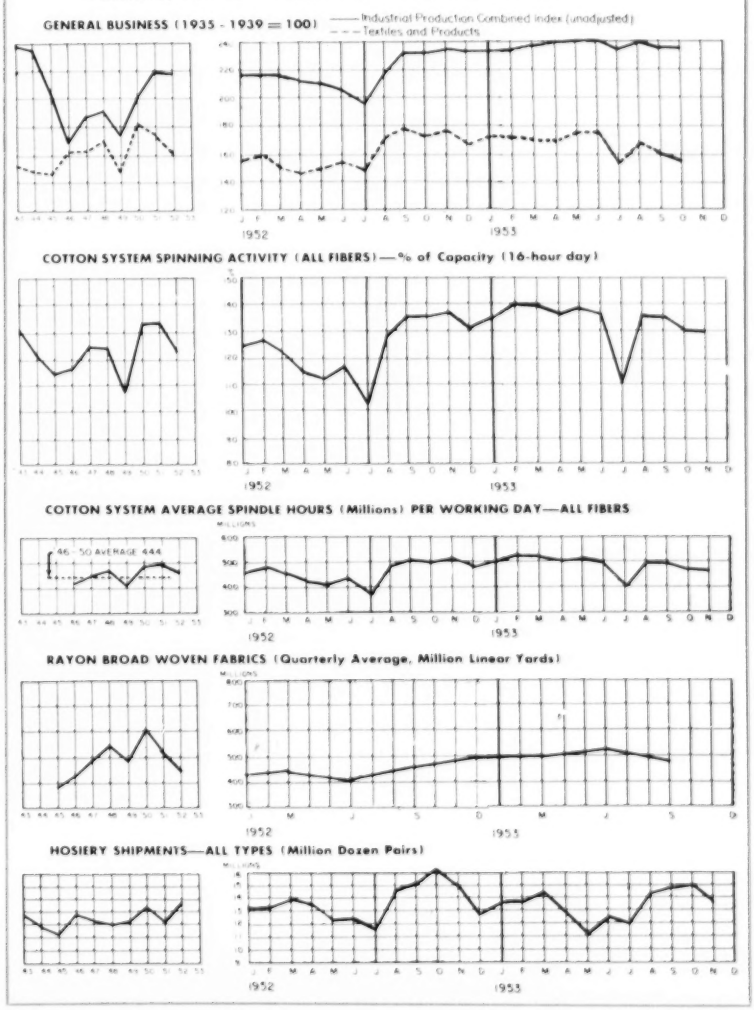
Texan Is 1954 Maid of Cotton. Dark-haired, blue-eyed Beverly Pack of El Paso, Texas, is the 1954 Maid of Cotton. Daughter of Mr. and Mrs. D. S. Pack, she is 5′ 7½″ tall, 20 years old, and is majoring in education and physical education at Texas Western. First alternate to Maid Beverly is Hope White of Uniontown, Ala.; second, Martha Garner of Poplar Bluff, Mo.

CIO Office Closed. The Huntsville (Ala.) Joint Board office of the Textile Workers Union of America (CIO) has been closed due to recent declines in union membership there. According to C. D. Boartfield, manager, the decision to close the office was made by the Executive Council of the International Textile Workers Union at its quarterly meeting in Cleveland, Ohio.

(Continued on page 223)

Textile Industry Activity Charts

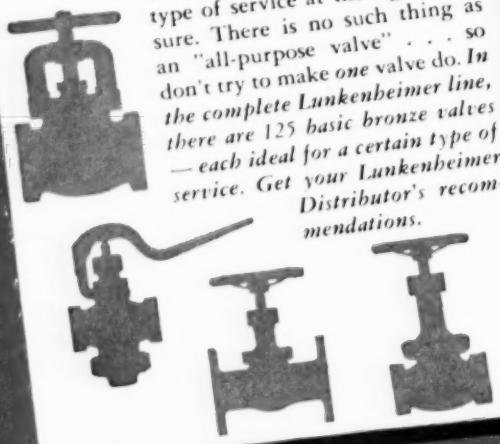
Source of information: Bureau of the Census, U. S. Department of Commerce; National Association of Hosiery Manufacturers.



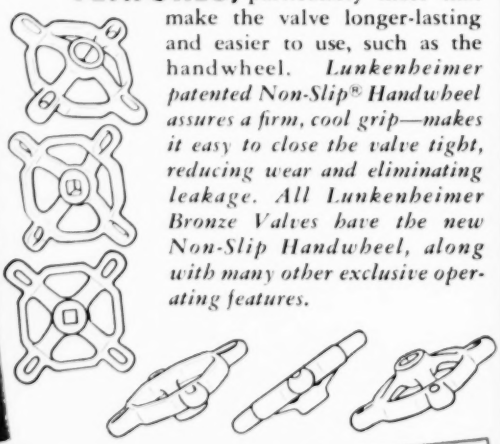
WHAT TO LOOK FOR

when you buy a Bronze Valve

1 LOOK FOR DESIGN. Use the right valve for the right type of service at the right pressure. There is no such thing as an "all-purpose valve" . . . so don't try to make *one* valve do. *In the complete Lunkenheimer line, there are 125 basic bronze valves — each ideal for a certain type of service. Get your Lunkenheimer Distributor's recommendations.*

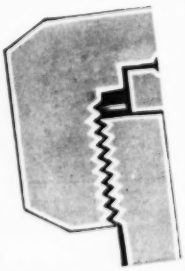


2 LOOK FOR OPERATING FEATURES, particularly those that make the valve longer-lasting and easier to use, such as the handwheel. *Lunkenheimer patented Non-Slip® Handwheel assures a firm, cool grip—makes it easy to close the valve tight, reducing wear and eliminating leakage. All Lunkenheimer Bronze Valves have the new Non-Slip Handwheel, along with many other exclusive operating features.*



3 LOOK FOR A LONG-WEARING STEM, since stem-thread wear is one of the most common causes of valve failure. *Lunkenheimer Bronze Valves have Stemalloy® Stems — an exclusive silicon-bronze alloy which completely eliminates stem-thread failure. Not one of the millions of Stemalloy Stems now in service has ever been returned because of thread wear.*

4 LOOK FOR CLOSE-GRAINED BRONZE, the mark of valve quality. Dense bronze not only increases the valve's strength, but makes it much more resistant to corrosion. *Lunkenheimer Bronze Valves are made of original Lunkenheimer alloys recognized by metallurgists as the highest-grade valve bronzes ever developed.*



Remember—The Price Of A Lunkenheimer Valve Gets Smaller And Smaller And Smaller With Each Passing Year Of Dependable Service

ALL POPULAR SIZES of Lunkenheimer Bronze Valves are maintained in stock for prompt delivery. Write for new Circulars 534, 582, and 574 describing typical designs. The Lunkenheimer Co., Box 360CC, Cincinnati 14, Ohio.

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BRONZE • IRON • STEEL

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THE ONE *Great* NAME IN VALVES

L-154 15

AN EXECUTIVE *Views*

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

Renegotiation Headache

A NUMBER of mills continue to have their problems because of renegotiation. We have mentioned the subject once or twice before in this space but, for fear you may not be thoroughly familiar with the subject, a short review of its meaning might be in order.

The Renegotiation Act seems to be founded on the principle that it is not right for a corporation to make an excessive profit in time of war, and few of us would quarrel with this laudable objective. If you have been making pipes in a factory in Michigan, and when war breaks out you convert your factory to the manufacture of 4.2 mortars, then the government contends that you should not make an exhorbitant profit because you are trafficking in war materiel.

There was such a law during World War II and a similar one was passed in 1951 to take care of the Korean emergency. The 1951 law has been in operation since that time and no doubt, in examples such as the one we have cited here, it has proved beneficial. The value of such a law is even clearer in instances in which new war equipment is being manufactured for which there is little or no background or experience.

As far as textiles are concerned, however, the law would be a joke if it were not such a nuisance. Voluminous reports are required of textile mills which belong to an industry in which profits have become as scarce as hen's teeth. We have inquired around here and there and we have not yet been able to uncover a single textile mill which has been required to make a payment to the government because of excessive profits in either 1951 or 1952. The same statement also applies to 1953 but, naturally, only a relatively few reports have been filed with the Renegotiation Board for fiscal years ending in 1953.

It is obvious, of course, that we have come in contact with only a relatively small handful of textile manufacturers, and there may be mills which, in the opinion of the Board, made "excessive" profits because they were selling to the government, but the fact remains that they must be few and far between.

A series of government figures we saw recently indicated that for the fiscal year ending June 30, 1953, all branches of the Army, the Navy, the Marine Corps, and the Air Force purchased about 415 million yards of cotton and rayon goods. As we recall, we are producing something like 12 billion yards of cotton and rayon a year, based on our current rate, so it is not difficult to see that military purchases of cotton and rayon amount to slightly more than 3 per cent.

What we are trying to illustrate is the fact that, although military purchases of textile goods are relatively small and textile profits for both civilian and military sales have been almost nonexistent, the necessity of filing renegotiation reports has not been eliminated for those mills which are covered by the Act. If we add to this the fact that few, if any, textile mills have been asked to pay the government anything because of excessive profits on military production, then we see what a waste of effort is involved.

The final point which somebody should make to the Renegotiation Board is that textiles have been made for many years—perhaps for hundreds of years—that they are of relatively standard construction and that their cost structure and their prices in the open market are almost a matter of public record. With the exception of a relatively few items which may have no civilian counterpart, practically all textiles are "standard" articles.

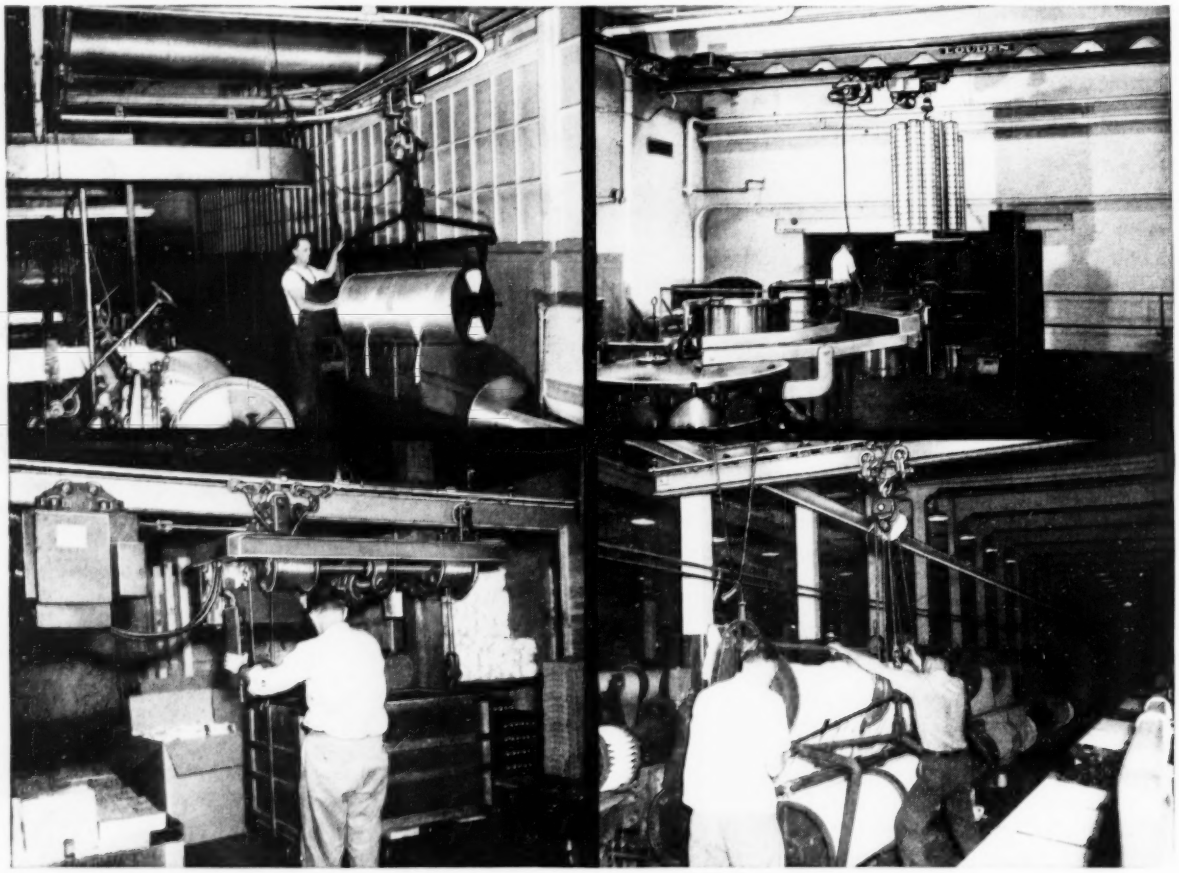
It seems to us that a great deal of wasted motion could be saved if the Renegotiation Board would designate which textile items are of the "war materiel" type and exempt the vast remaining group from renegotiation. This would be a sensible move which would result in savings for both the textile industry and the government.

Let's Move Textile Mills

The other day we read a newspaper editorial which was downright disheartening. This editorial appeared in a newspaper which is published in the heart of the textile South, but it seemed to us to reflect the fact that the writer of the editorial was not greatly concerned about what might happen to this industry in the event our tariff walls are further reduced.

The United States, the editorial said, must allow foreign countries to trade with us if we are to prevent world chaos, maintain our own prosperity, and advance the prosperity of the rest of the world, and if we are to keep the peace. A statement such as this

You can do it better with Louden engineered monorail!



Let Louden's long experience solve your textile handling problems

Louden pioneered monorail handling. This longest and broadest experience with the most adaptable and most flexible of all materials handling methods naturally offers many *extra* benefits to men seeking answers to any handling problems. Shown above are Louden Monorail handling equipment in four of the nation's leading textile mills. On performance, Louden is the preferred choice of many of this country's most progressive operators. Benefit by Louden experience and success on YOUR next handling problem.

THE LOUDEN MACHINERY COMPANY
4202 Court St., Fairfield, Iowa
A Subsidiary of Mechanical Handling Systems, Inc.

SEND FOR THIS BOOK— Write for your copy of "Economical Material Handling" . . . full of time-saving, cost-cutting ideas and case histories. Free . . . no obligation.

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MONORAIL & CRANES

Since 1867—the first name in materials handling

presupposes that foreign nations are not trading with the United States now, and this, of course, is ridiculous. Just about everybody agrees that there must be trade between nations if we are to have prosperity and peace, and to belabor this point is merely to evade the issue.

It seems to us that a more scientific appraisal of the situation might be obtained if we went into the actual figures with regard to this country's imports and exports. Figures of the United States Government indicate that in 1952 we imported from foreign countries approximately $10,700,000,000 worth of goods. This was some four and one-half times our average imports for the 1936-1940 period. During 1952 we sold to these countries approximately $15,200,000,000 worth of goods. Comparing our imports of $10,700,000,000 against our exports of $15,200,000,000, indicates that we are not by any means failing in our responsibility to trade with other nations.

The picture is even better than this, because a part of this "gap" between imports and exports is filled by American dollars involved in foreign holdings abroad, by American tourists who spend lavishly in the countries they visit, and by other similar means which would not be included in the figures on "imports." Some authorities even claim that an accurate computation of this outward flow of dollars would, if added to the dollars spent for imports, more than tip the scales in favor of the foreign countries.

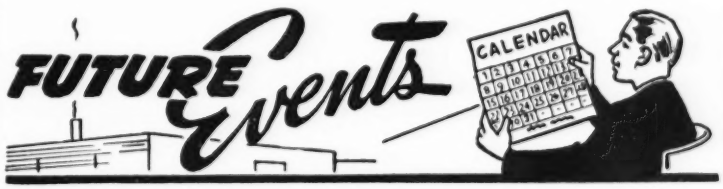
Then why all the wailing and moaning about America's obligation and duty to trade with foreign countries?

Getting selfish about the matter, we have already found in the textile industry that a bale of cotton can be purchased in Texas, shipped to Japan, made into cotton handkerchiefs, shipped back into the United States, paying the freight both ways and paying the tariff as the handkerchiefs come into the United States, and these handkerchiefs can be sold in Texas for a lower price than our cost of production.

If we are going to reduce this rate of duty still more, the textile industry is going to be in a deplorable situation. Finally, somebody is going to have to decide whether or not this nation is willing to sacrifice the textile industry, and many other industries, in order to accomplish some purpose which has never been very clearly defined.

We are all in favor of international peace, of prosperity in all countries, and of trade between the nations of the world. Those who are discussing the tariff question in the newspapers would do

(Continued on page 209)



Feb. 1-2—Annual meeting, **National Cotton Council of America**, Biltmore Hotel, Atlanta, Ga.

Feb. 4-6—Technical meeting, **Textile Div., American Society for Quality Control**, School of Textiles, N. C. State College, Raleigh, N. C.

Feb. 17-19—Fifth annual **Cotton Research Clinic**, sponsored by the National Cotton Council of America, Carolina Hotel, Pinehurst, N. C.

Feb. 25-27—Annual convention, **Phi Psi** national honorary textile fraternity, Carolina Hotel, Pinehurst, N. C.

Mar. 17-19—Meeting of **Committee D-13** on Textile Materials, **ASTM**, Statler Hotel, New York, N. Y.

Mar. 18-20—Annual meeting, **Alabama Cotton Manufacturers Association**, Hotel Buena Vista, Biloxi, Miss.

April 2—Spring meeting of **Carolinas Section, American Society for Quality Control**, Clemson (S. C.) College.

April 2-3—National convention of **Delta Kappa Phi Fraternity**, N. C. State College School of Textiles, Raleigh, N. C.

April 5-8—American Management Association's 23rd **National Packaging Exposition and Conference**, Convention Hall, Atlantic City, N. J.

April 7-10—Annual convention, **Cotton Manufacturers Association of Georgia**, Boca Raton (Fla.) Hotel and Club.

April 21-23—**Southern Industrial Wastes Conference**, Hotel Shamrock, Houston, Texas.

April 22-24—Annual convention, **American Cotton Manufacturers Institute**, Jung Hotel, New Orleans, La.

April 26-30—**American Textile Machinery Exhibition** (sponsored by American Textile Machinery Association), Atlantic City (N. J.) Auditorium.

April 28—**Lowell Technological Institute Alumni Meeting**, Haddon Hall, Atlantic City, N. J.

May 3-4—17th **Hosiery Industry Conference** and 50th annual meeting of **National Association of Hosiery Manufacturers**, Claridge Hotel, Atlantic City, N. J.

May 5-6—Spring meeting of **The Fiber Society**, Institute of Textile Technology, Charlottesville, Va.

May 19-20—100th Anniversary Celebration of **The National Association of Cotton Manufacturers**, Somerset Hotel, Boston, Mass.

May 27-29—Annual convention, **South Carolina Textile Manufacturers Association**, The Cloister, Sea Island, Ga.

June 10-12—Annual meeting, **Southern Textile Association**, Ocean Forest Hotel, Myrtle Beach, S. C.

June 13-18—Annual meeting, **ASTM** (11th Exhibit of Testing and Scientific Apparatus and Laboratory Supplies and 9th Technical Photographic Exhibit). Sherman and Morrison Hotels, Chicago, Ill.

Sept. 9-12—**Fourth Canadian Textile Seminar**, Queen's University, Kingston, Ontario, Canada.

Sept. 13-14—Fall meeting of **The Fiber Society**, McGill University, Montreal, Canada, with The Textile Technical Federation of Canada and Canadian Association of Textile Colourists and Chemists cooperating as hosts.

Sept. 15-16—National convention, **American Association of Textile Chemists and Colorists**, Biltmore Hotel, Atlanta, Ga.

Oct. 4-9—18th **Southern Textile Exposition**, Textile Hall, Greenville, S. C.

Oct. 14-15—Annual meeting, **North Carolina Textile Manufacturers Association**, Carolina Hotel, Pinehurst, N. C.

Three Reasons Why

JACOBS

PICKER STICK ASSEMBLIES *Last Longer*

JACOBS REINFORCED "Verybest" Check Straps give 100% performance—*longer!*

With 12½% more wearing surface these check straps conform to the angle of the Picker Stick. Made of select quality hairy or oak leather, they give more gradual checking, less loom shock, save power, and add longer life.

JACOBS Picker Sticks stay "alive"—*longer!*

Made of the finest straight-grained select hickory obtainable, air-dried at controlled temperatures, Jacobs Picker Sticks impart that necessary "live" whipping action to the shuttle longer than any other picker stick made.

JACOBS REINFORCED "Verybest" Lug Straps can "take it"—*longer!*

Reinforced in vulnerable spots, these Lug Straps offer lower operating costs, less breakage, and longer wear. They are made to operate at high speeds, and soften the extreme impact of modern high speed looms.

Save time with less loom fixing

Jacobs Loom Necessities manufactured and stocked at both Charlotte, N. C. and Danielson, Conn.

THE BULLARD CLARK CO.

JACOBS

SOUTHERN DIVISION Charlotte, N. C.

NORTHERN DIVISION Danielson, Conn.

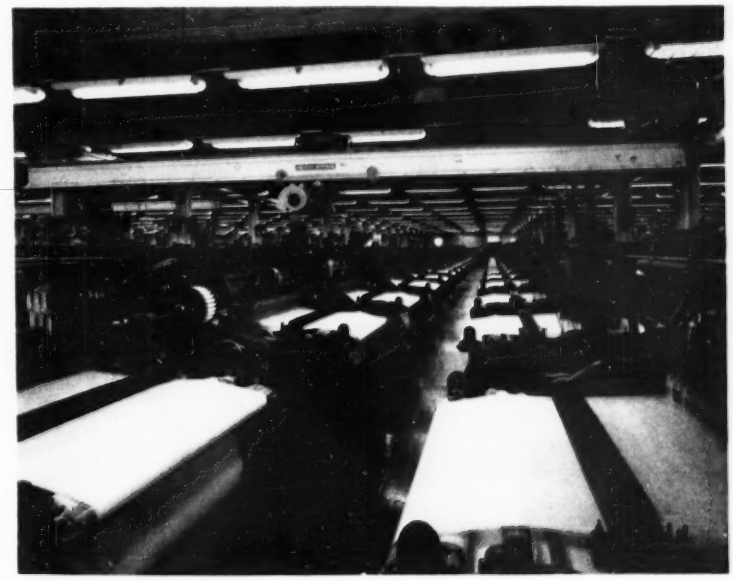
NEW Equipment AND MATERIALS

Crane Type Loom Cleaner Cuts Track Cost, Improves Room Appearance

By using a double-bridge, power-operated monorail crane for transporting a blower-type loom cleaner, several advantages are gained.

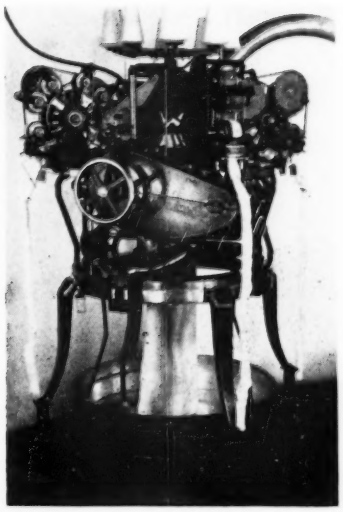
Individual lines of monorail track need not be suspended over each row of looms, saving track cost and improving appearance of the room. Also, the looms can be serviced with hand chain or electric hoists on a handpushed crane over the same area with the cleaner crane shut off.

Normal operation consists of crane travel at 60 feet per minute over a single row of looms. When the crane reaches the end, it stops to permit the cleaner to travel to an indexing point over the next row of looms, and the crane starts down the row in the opposite direction. Four rows of looms can be cleaned with a single crane type cleaner.



The American MonoRail Co., 13106 Athens Ave., Cleveland 7, Ohio.

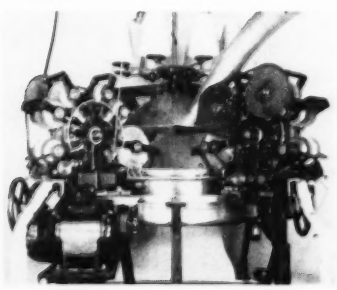
For additional data, request item B-501, using Handy Return Card on page 194.



Pile Fabric from Sliver with Circular Knitter

Pile fabric having a wide range of uses—some of which are outerwear garments, linings, and rugs—can be knitted from a sliver (not a yarn) of any staple from ¾" to several inches on a Wildman circular knitting machine which has been supplied in 10 cut and in 22-inch and 23-inch diameters to finish fabric 54 inches wide.

Left, full view of Wildman pile fabric knitter. Below, close-up photo.

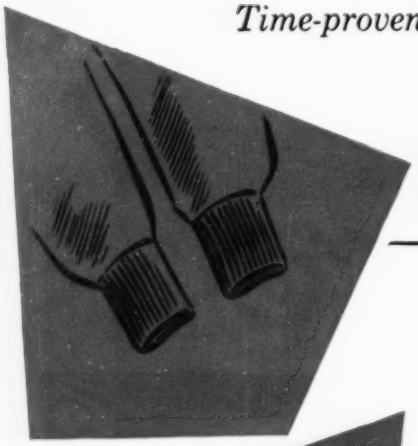


The size varies according to the length and weight of the staple of the sliver. Using ¾" staple in a sliver weighing 145 grains per yard, fabric will weigh approximately ⅝ pound per square yard. The amount of sliver is about twice the weight of the backing yarn of two ends of 20/2 cotton count.

Wildman Mfg. Co., Norristown, Pa.

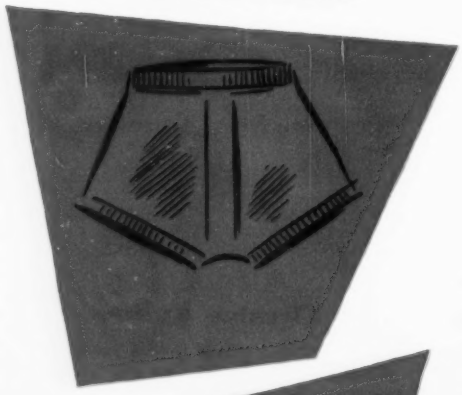
For additional data, request item B-110, using Handy Return Card on page 194.

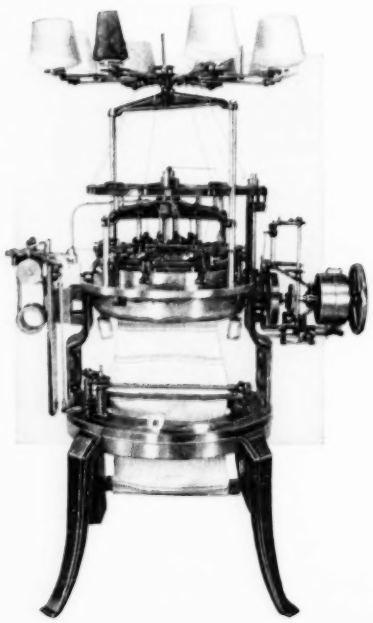
Time-proven Facts of Interest to Executives!



production | plus

when it's a Wildman | *rib fabric striping machine*





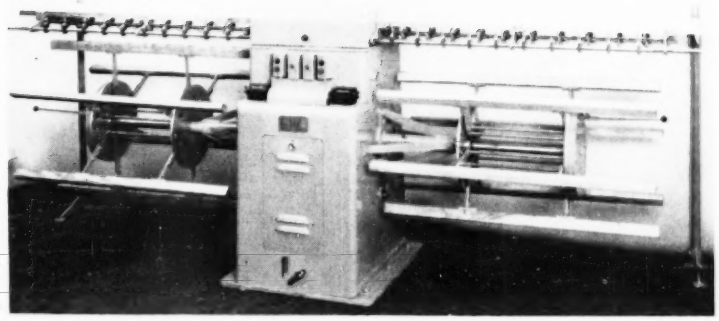
With the consumers' desire for special knit fashions on the increase, this Machine is in the indispensable class. Knits rib fabric, striped fabric of unlimited patterns, half cardigan, English or round welt, French or Tubular welt and clearing course and draw thread.

Combinations of the variety of stitches produces, in addition to those illustrated: fabrics for cuffs, collarettes, sweater bottoms, underwear, outerwear, sportswear, beachwear. Belt or individual motor drive.

Inquire today for complete details.

WILDMAN MFG. CO.
NORRISTOWN, PA.

MANUFACTURERS OF: FULL FASHIONED HOSIERY MACHINES; CIRCULAR MACHINES FOR OUTERWEAR, UNDERWEAR, SPORTSWEAR, TRIMMINGS; STOP MOTIONS



Johnson & Bassett's new reeler holds 28 skeins.

Skein Reeler Features Simplicity and Efficiency

A new skein reeler owes its simplicity and efficiency to modern, functional designing.

Its full capacity, 28 skeins arranged 14 on each side, is under flexible and accurate control because:

1. The two sides are completely independent, since there are two entirely separate motors.

2. Yardage counters stop the reels promptly at the desired yardage with minimum coasting by the swift.

3. Stop motions are also strictly controlled for minimum swift-coasting.

4. Selector switch, built in as standard equipment, cuts out stop motions and electric counter as needed.

5. Reel has variable speed, ranging from 150 to 300 rpm.

6. Swifts accommodate either 72" or 90" skeins, and can be changed simply, without changing arms. Skeins up to 107" can be used if the arms are changed. Adaptation to other skein sizes can be made when reeler is ordered.

The reeler is sturdily constructed. Its simplicity of doffing adds still further efficiency advantages over other types of reels by eliminating all the heavy work. Top tables are furnished, and special creels needed are supplied at nominal cost.

Johnson & Bassett, Inc., Worcester, Mass.

For additional data, request item B-101, using Handy Return Card on page 194.

Five-Roll, Double Draft Spinning Frame Offers Wide Draft Range

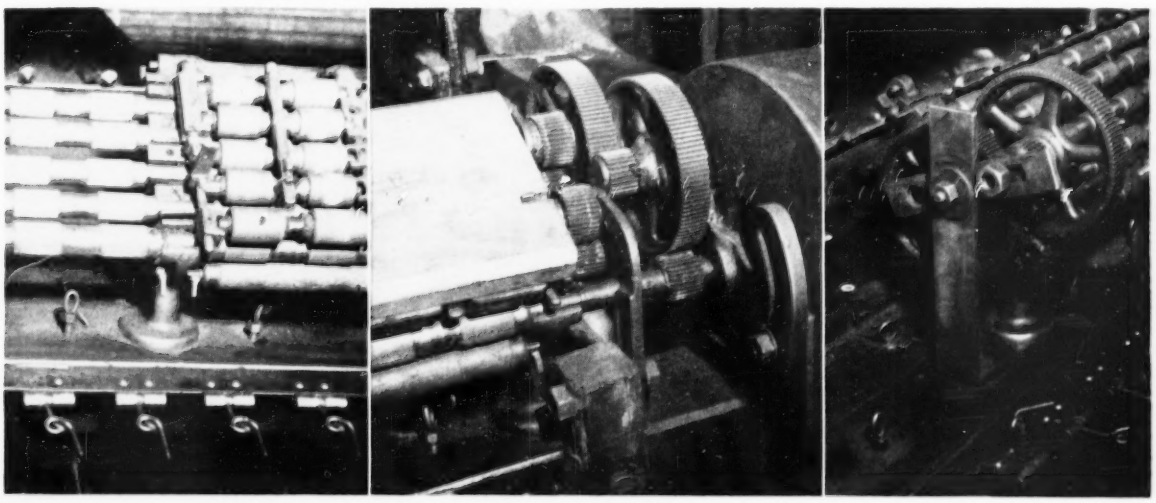
A draft range not obtainable on conventional spinning frames is claimed for a new five-roll, double-draft unit now being marketed. Cotton roving for 26s yarn, for example, is reported to have been spun on the new frame into counts from 10s to 50s without sacrificing quality. Increased strength of yarns produced on this spinning frame is another of its advantages.

Cotton, rayon, nylon, wool, and the newer man-made fibers, as well as blends, can all be processed on the machine which is similar to a conventional frame except from the thread board up.

There are five fluted bottom rolls and five cork-covered top rolls. The first three rolls at the back are driven in the usual manner, and another gear box provided at the other end of the frame drives the two front rolls. Front and back rolls are weighted.

Tests indicate that one spinner can tend 10 to 12 sides with the new

Close-up photos of spinning frame converted to the five-roll, double draft system (H. G. Drake).



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efficiency
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economy

RAPIDASE®
for removal of starch sizes

SERIZYME®
for removal of protein sizes

for de-sizing

ask for our latest bulletin on
continuous de-sizing

WALLERSTEIN COMPANY, INC. 180 MADISON AVENUE, NEW YORK 16, N. Y.

frame spinning either natural or synthetic fibers, according to the manufacturer.

Conversion assemblies are available for conventional frames.

H. G. Drake, Box 391, Gastonia, N. C.

For additional data, request item B-102, using Handy Return Card on page 194.

Coloroute Plan for Lubrication Control

The Coloroute Plan—a new method of completely controlling every phase of industrial lubrication—is a plan whereby easy-to-use color symbols are utilized to control the selection, handling, and application of all oils and greases from the "barrel to the bearings" of machines.

Coloroute makes easy the identification and segregation of lubricants in the oil room; prevents mis-application of lubricants in the plant; definitely assigns lubrication responsibilities; reduces the number of lubricants; provides "barrel to bearing" application to deter contamination; highlights hidden lubrication points, and greatly simplifies the "oiler's" job.

The Coloroute Plan originates in the oil room where each lubricant drum is color coded. Application units are color coded, also, to coincide with the code adopted in the oil room. As each machine bearing in the plant is similarly color coded, the delays in selection and mis-application of lubricants are avoided.

In addition, the plan offers a record of lubrication requirements for each bearing, for each machine, for each plant and, too, provides a complete lubrication schedule covering lubricant and application frequency for each machine serviced.

From these records, a check-up on lubrication requirements may be performed to determine the minimum amount of lubricants and equipment necessary to do the job correctly.

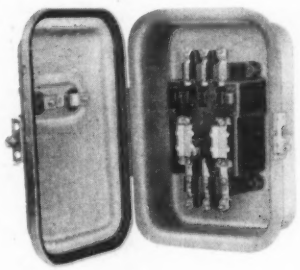
To do the job, a kit is available containing quick-drying lacquer in six colors in as many spray containers; a set of stencils, each of different design to represent the varying frequencies of application of different oils or greases, plus lubrication analysis sheets; master record cards, and an oil room identification chart.

The oiler follows the Coloroute in this step-by-step manner:

In the oil room he transfers lubricant from the color-marked, sealed drum to the same color-marked lubrication gun. In the plant, the gun is used only to lubricate those bearings marked with the same identifying color. Frequency is determined by the shape of the symbol on the bearing, insuring the right lubricant for the right bearing at the proper time.

Alemite Division, Stewart-Warner Corp., 1826 Diversey Parkway, Chicago 14, Ill.

For additional data, request item B-305, using Handy Return Card on page 194.



Loom switch (Arrow-Hart & Hageman).

Exceptional Resistance to Shock and Vibration Offered by Loom Switch

The Type "LM" Loom Switch—a Size O, across-the-line, manual starting switch for single or multiple shuttle looms—is housed in a lint-proof enclosure of heavy gauge, formed steel with a free-swinging hinged door and a balloon type, neoprene impression gasket.

An outstanding feature is the statically balanced, rotary type mechanism capable of resisting shock and vibration far in excess of any encountered in actual loom installations.

The compact mechanism consists, internally, of two complete and separate units, the main contacts and the overload tripping device. All abnormal overloads are interrupted by the overload tripping device and not the main contacts.

The overload tripping device utilizes knife blade contacts, thus reducing the chance of contact welding under short circuits.

The overload re-set mechanism is designed to provide maximum safety.

Other features of switch are: ample wiring room due to the unusual compactness of the mechanism, a self-locking cover latch, push-button operation, and true solderless lugs on all terminals.

Industrial Control Division, The Arrow-Hart & Hageman Electric Co., 103 Hawthorn Street, Hartford 6, Conn.

For additional data, request item B-306, using Handy Return Card on page 194.

NEW Equipment AND MATERIALS

Warp Size for Filament Dacron

Development of a warp size, tailor-made for the newest filament synthetics, has been announced. The new product, Stymer R, has been successfully tested in mills on filament Dacron.

A white, granular material, readily soluble in water at 190 F, Stymer R is a free-flowing, easy to handle, vinyl compound.

Monsanto Chemical Co., Merrimac Div., Everett, Mass.

For additional data, request item B-502, using Handy Return Card on page 194.

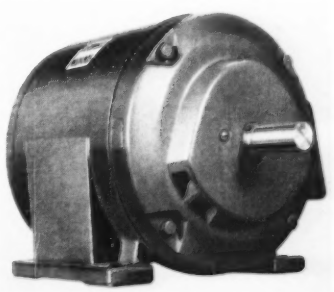
Squirrel-Cage Motors Meet New NEMA Standards

A line of well-protected, versatile squirrel-cage induction motors, including protected and enclosed motors for all industrial purposes, is being built to recently adopted standards of the National Electrical Manufacturers Association.

The first of the new Reliance motors to appear will be built for 1, 1½, and 2 horsepower applications, in frame sizes 182 and 184. The present Reliance a-c line will continue to be available during this change-over

(Continued on page 211)

New Reliance motors provide greater horsepower in more compact space.



STRENGTH . . . Where it's needed most

To stand continual flexing and still retain straightness and shape — particularly in the beard where the wire is hair-thin — a needle must be strong.

Textile's steel formula, special tempering process and electronic control of manufacture give this hair-thin bit of wire an unusual degree of resiliency and strength.

Textile's extra strength means fewer stops . . . lower reneedling cost . . . more top grade fabric produced . . . more profit at the year's end.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile

SPRING-BEARD NEEDLES

Arrow LATCH NEEDLES

For the sixth consecutive year **Textile Industries** *for February presents*

71 articles tell how mills

- ► **save labor**
- ► **simplify jobs**
- ► **reduce waste**
- ► **improve quality**
- ► **increase production**

THE Case History Reports in this issue tell how textile mills are putting modern equipment to work on a profitable basis. That is the pay-off.

While reading the various equipment performance reports, remember that they are based on installations which have proved successful. Inasmuch as local conditions differ and few mills operate identically, try to fit the application of the equipment to your own plant. If you desire additional data, write to the editors or to the supplier of the equipment.

Remember also, when a new piece of equipment is made available to the industry, some organization had to pay for the research and development and some mill had to experiment with and test the equipment until it was ready to run on a production basis.

Research by suppliers of textile equipment has kept our American textile industry competitive in a highly competitive world market. But research is a joint venture—and credit also goes to those mills which are willing to devote time and ideas to the development of a product which eventually raises the level of the entire industry.—Eds.

Please turn the page. There are 43 more in this special section.

RUSSELL wanted to get away from this ↑ and this →

RESULT was this →

Special Trucks Make Spinner's Job Easier; Improve Quality; Reduce Cleaning

case 1

RUSSELL Manufacturing Company, Alexander City, Ala., wanted to get rid of the type roving storage shown in **Photo 1** and to discontinue laying-up roving on top of the spinning frames and then removing it as shown in **Photo 2**; it was accumulating lint and sloughing-off from the draft of the overhead cleaner.

Other desirable aims were to handle the roving less (no transfer of stock from roving truck to top of frame), to save the time and effort of the spinner when reaching for a package on top of the frame, and to keep aisles in the spinning room free of roving trucks.

In other words, Russell wanted a spinning room without roving storage on top of the frames and a handy, working-level, portable roving supply for the spinner as shown in **Photo 3.**

So Russell called in Fisher Manufacturing Company of Hartwell, Ga., to build the necessary equipment.

Photo 4 shows the special truck which holds a complete doff of roving packages stored in four individual fiber spinner boxes.

The roving truck is moved to the spinning room **(Photo 5)** where the roving hauler loads the spinner boxes on ready storage racks on the headend of the frames **(Photo 6)** so that the spinner can reload her specially-built buggy with little effort (no lifting) as shown in **Photo 7,** and keep the roving supply with her at working level as she patrols the job.

The roving trucks, spinner buggies, and headend storage racks are equipped with conveyor rollers for

Cloth Identification Does Not Fade in Bleaching

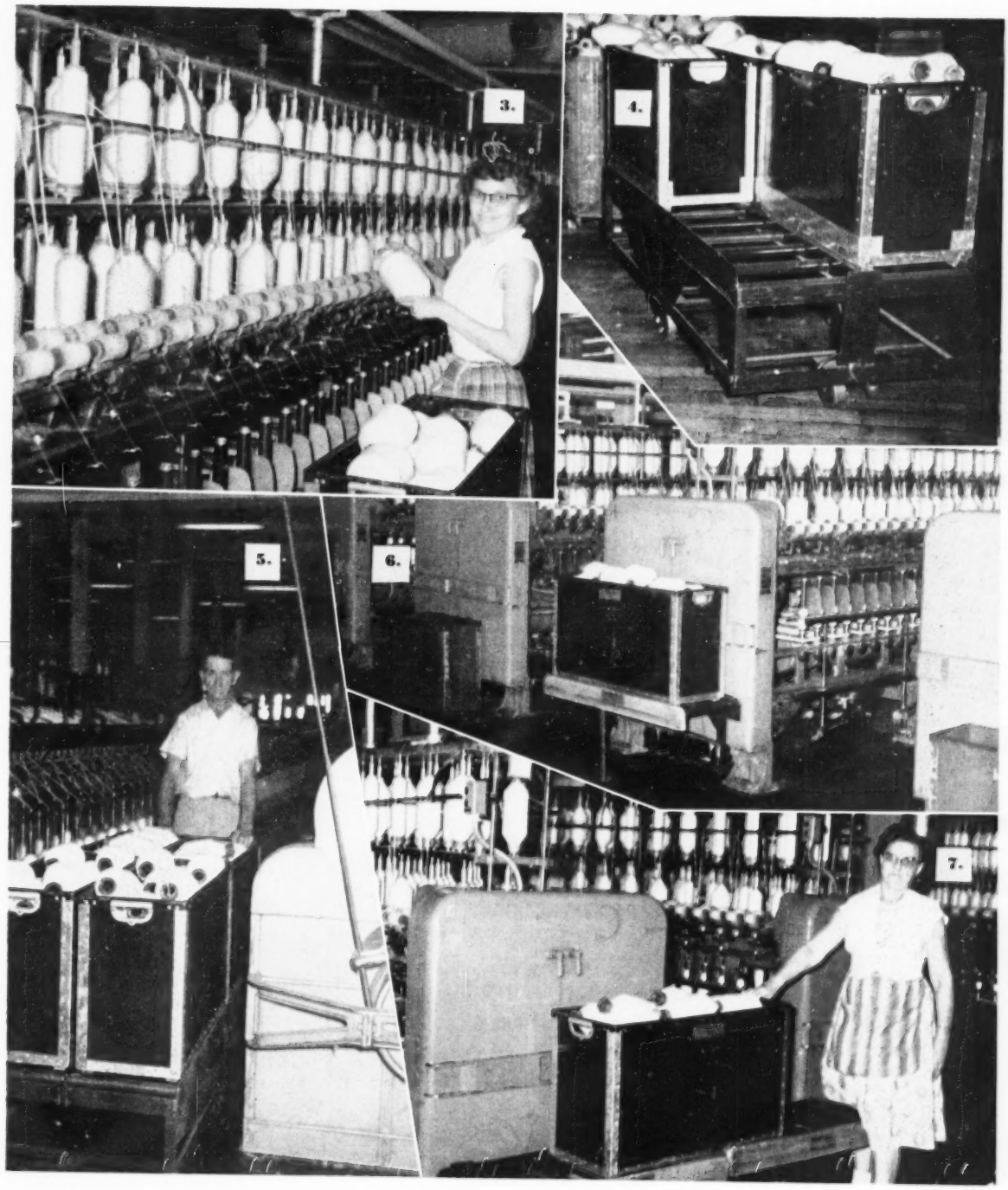
case 2

WHEN mills produce many varieties of cloth, it becomes necessary to mark the style, order number, yardage, weight, or other details on the end of the cut. This operation is usually done by the cloth inspector when the cloth is examined, and subsequent handlers identify the cloth by these markings.

One Canadian mill experienced trouble in the bleaching process. The carbon pencil markings either disappeared completely or faded so much that it was difficult to read them. Other types were tried. Some disappeared, some faded, some ran and smudged other cloth.

Upon purchasing bleach-proof black, a product of the John P. Nissen Jr. Co., Glenside, Pa., the mill has had three years of untroubled experience, and nothing has been found better for the purpose.

This marking material was tried under every conceivable condition. It dried rapidly; was easy to apply; remained perfectly black and easy to read after peroxide or caustic bleaching. It was also easy to read after piece dyeing the cloth and never ran or smudged other layers of cloth. Nor did the substance mark the calender bowls when marked unbleached fabrics were calendered.



ease in handling the boxes; also, the headend racks may be removed quickly (no bolts) so as not to delay the fixer.

A deviation from the system of using headend storage racks may be to use the roving truck as the supply source if there is adequate space, in which instance the spinner buggy is loaded directly from the roving truck by rolling the box easily on the conveyors.

Results from this system: More orderly storage, roving packages protected in boxes and not removed until ready for creeling in spinning, less handling time and equipment, more floor space now available, improved quality of yarn (not stored where can collect lint), elimination of lifting from spinning job, less cleaning time because bare creel boards are blown clean (some mills cut out creel boards after removing roving so that overhead cleaner can blow between them).

F-F System Reduces Handlings from Nine to Three

case 3

A NEW system of inspecting, pairing, and measuring full-fashioned hosiery is in use at Carol-May Finishing Co., Inc., Concord, N. C. The system employs and coordinates a modified table, selection of lengths by color, and a peg rack.

Advantages claimed for the improved operation include: (1) reduction in frustration fatigue among operatives; (2) less difficulty in pairing, even within the range of closer tolerances; (3) fewer odds; (4) reduced number of handlings to find a pair; (5) increased production; (6) decreased costs; (7) double inspection; (8) the highest degree of measurement accuracy is secured and maintained with ease because the color measuring chart and the colored end of the placement pegs are color coordinated.

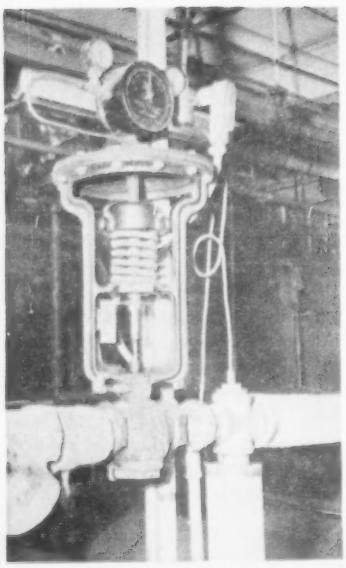
5¢ PER DOZEN SAVED in coordinated full-fashioned inspecting, pairing, and measuring system.

The finished operation resulted from a demand to pack hosiery in one-quarter dozen boxes within an overall length tolerance of one-half inch and a heel length tolerance of one-fourth inch between any three pairs.

The system will be made available for the hosiery industry on a negotiated basis.

Premeasuring in fine segregations has reduced average handlings in round figures from nine to three (to find a perfect pair). Frequently, an operator will be able to pair several dozens, one stocking after the other, with no lost motion and no extra handlings in order to find a pair. Odds have been reduced from five per cent (the average number obtained in a close tolerance pairing operation) to an average of three tenths of one per cent.

The system is said to combine measuring with inspecting-pairing on a more accurate basis than ever before, and the cost of an extra measuring operation has been eliminated. From a financial standpoint, estimated savings on a production of 250,000 dozens per year, at a minimum of 5¢ per dozen, amounts to $12,500 annually.



AUTOMATIC VALVE is a combination pressure and electrical device. When the switch cuts off the slasher motor, another switch stops air pressure which closes the steam valve.

No Overdrying Light Denier Synthetics with Automatic Valve on Slasher

case 4

ELBERTON Mills, Elberton, Ga., are now using an automatic valve to stop the flow of steam to slasher dry cans when the speed of the slasher is reduced to jog or stop. The valve is a valuable addition and helps to prevent overheating of light denier acetate yarns. The arrangement also permits more economical use of the steam in the slashing operation. The entire valve mechanism was made by mechanics and machinists in the mill shop, and the total cost was about $25.00.

Formerly, when the slashers were standing still, steam in the

dry cans made the cans too hot, and the steam was wasted.

The valve mechanism shown in the accompanying illustration is automatic in operation. It is a combination pressure and electrical device. When the switch cuts off the slasher motor, another switch stops air pressure which closes the steam valve.

Steam is usually admitted to the dry cans by means of air controlled, reverse acting, relay type of pressure reducing valves. This valve is opened by air pressure and closed by a spring, maintaining constant pressure of 30 psi on the dry cans. The pressure reducing valve admits steam only when air is present against the diaphragm, and the valve closes completely upon absence of air pressure. A spring was employed to open and close the air line as the machine started and stopped.

An inexpensive normally closed 110-volt electric solenoid valve was installed in the air line to operate the pressure reducing valve. This solenoid valve was connected to a normally open contact on limit-switch, which is used in motorized speed control rheostat of the conventional d-c slasher drive. The solenoid can be connected to either the minimum speed limit-switch or the maximum speed limit-switch. If the minimum speed switch is utilized, steam will be admitted to cans at the same instant the fast button on slasher control switch is operated, and when connected to the maximum limit switch, steam is admitted the instant full speed is attained.

A single pole toggle switch with a pilot light was also wired into the solenoid circuit. It will energize the solenoid and admit steam for preheating the cans.

Drying Range Speeds Production: Amortized in Three Years

case 5

THE United States Finishing Co., Norwich, Conn., installed a Unistel high pressure stainless steel can dryer with 66″ face in conjunction with a James Hunter 10-compartment open soaper. The installation was made in 1950, and savings in operating labor, maintenance, and power have returned the investment in the range in three years.

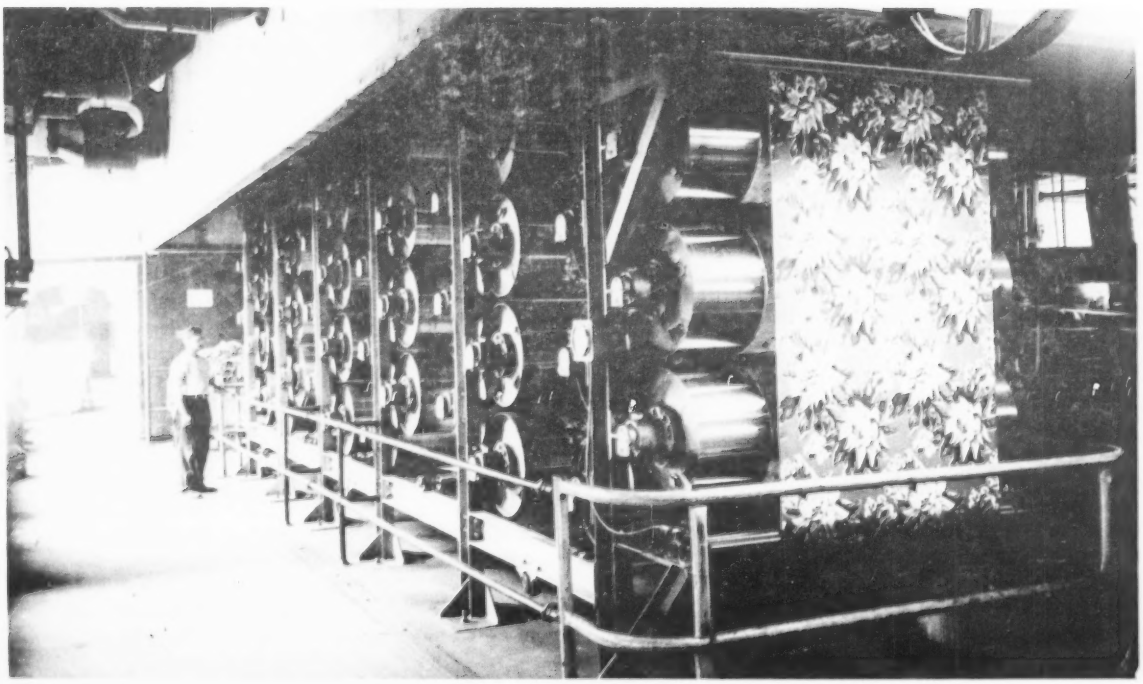
The Unistel dryer has demonstrated a greater drying capacity than anticipated, and the range is capable of washing and drying production in excess of that handled by the three old ranges.

In selecting equipment for the new range, the plant's engineering organization had to consider:

(1) Reliability—because a breakdown would bottleneck total production.

(2) Flexibility—because cloth

PAYS FOR ITSELF IN THREE YEARS by saving labor, maintenance, and power. Cloth is handled at speeds over 100 ypm.



weights ranged from 7.5 yard handkerchief to 1 yard drapery.

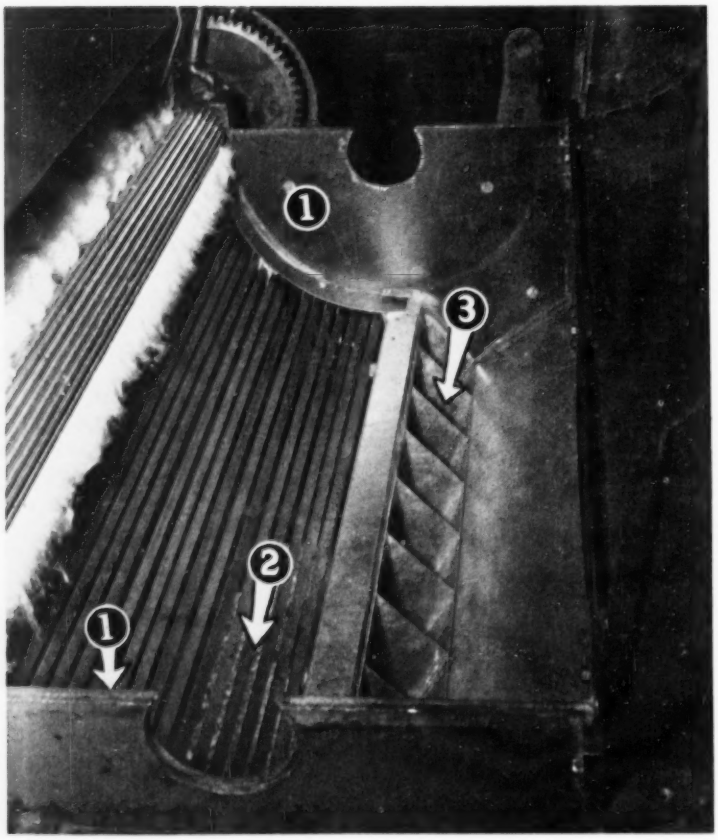
(3) Quality—because expensive print cloths are produced here.

The Unistel dryer consists of six vertical stacks of 10 cans each with traversing rolls between stacks and was furnished complete with roller chain transmission, rotary pressure joints, piping, steam traps, and with ball bearings on all moving parts. The cans are A.S.M.E. Code for 50 psi steam working pressure.

The drive was set up for 30 to 120 yards per minute, but inasmuch as the greater percentage of the fabrics are of very heavy construction, it was anticipated that normal drying speeds would be considerably below 100 yards per minute. In actual operation, however, the dryer has handled 1.2 yard cloth at 80 ypm and lighter goods above 100 ypm without having used the maximum allowable steam pressure.

Evenner Card Sliver after Picker Modification

case 6



MORE UNIFORM LAPS from modified picker. Finisher beater compartment: (1) ¼" mild steel plate installed because settings are to closer tolerance. (2) Grid bars are used for trash removal only; no air comes through at this point on the picker modification. (3) Air intake tunnel, with individual compartments for regulating the lateral evenness of the picker lap as the stock is pulled to the screen.

THE modification of pickers to produce a lap which is more uniform ¼" to ¼" linearly and from selvage to selvage has enabled several mills to reduce the weight per yard variation of their card sliver. With this improvement in the picker lap (where the first attempt is made to produce a product of a definite weight per unit length), the card sliver weights, drawing sliver weights, hank size of roving, and yarn counts remain more constant without the large number of doublings necessary to correct unevenness resulting from poor picker laps.

The picker modification consists of redesigning the portion of the picker between the beater and the screen, the installation of an air intake duct, and the use of a cylindrical-type beater, all on the finisher section of the picker.

Joanna Cotton Mills, Joanna, S. C., compared three modified pickers with their conventional pickers. Number Two spinning room at Joanna had for several years produced yarn with a lower break factor and higher non-uniformity than Numbers One and Three spinning rooms. When only stock from the modified pickers was channeled to Number Two spinning, the trend was reversed, and Number Two spinning produced a more uniform yarn with a higher break factor. This was checked for several months, and then the remaining pickers were modified, completely equipping the mill.

Two of the largest manufacturers of non-woven products are using modified pickers. The improvement made in the picker lap is immediately seen in the finished product as a result of improving the within-yard and lateral variation of the picker lap.

The Tritex Corporation, Lanett, Ala., supplies the picker modification, which formerly was handled by the Mechanical Division of Southeastern Engineering Company, West Point, Georgia.

Nylon Twisting Travelers Permit Larger Packages

case 7

NYLON travelers are used for twisting all domestic and industrial threads at Coats and Clark, Inc., and the benefits of the travelers have been proved by better performance, easier operation, and cost saving. Package yardage has been increased an average of 15%.

The advantages of the nylon travelers as reported at these mills are as follows:

(1) Longer life,
(2) Less greasing needed,
(3) More yardage wound per package,
(4) Smoother run,
(5) Fewer traveler sizes to acquire,
(6) Less end breakage,
(7) Less cutting.

It is reported that the smooth operation of nylon travelers may lead one to choose an excessively heavy traveler, in which case the running tension becomes high enough to burn the motor. Higher tension means more power consumption, which in turn is more than offset by application of much less grease and the longer life of the travelers. In all instances, higher yardage may be wound on the packages with no higher end breakage.

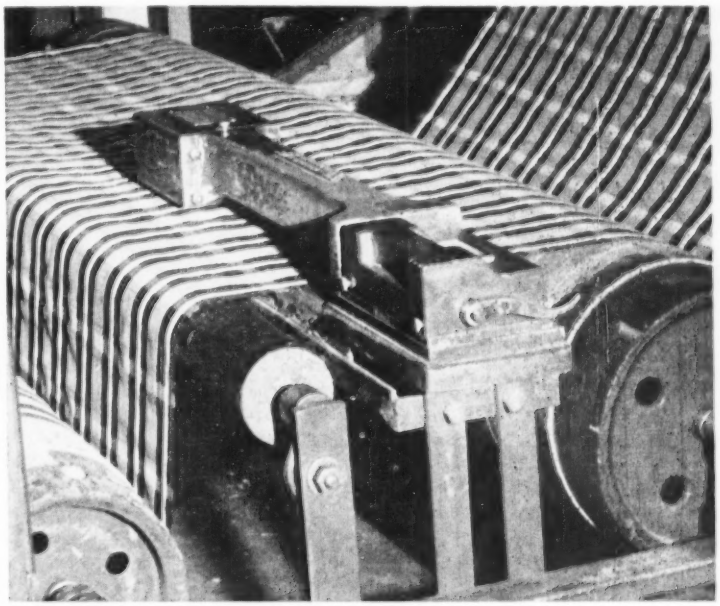
The traveler life is so long that the necessity arises to take off the travelers to clean them and remove the accumulated waste before putting them on again. These mills have tested medium size travelers which ran twelve weeks, with one cleaning at mid-life.

3″, 3½″, 4″, and 4½″ twister rings are used at Coats and Clark, Inc. The rings are the same as formerly used with metal travelers. The several nylon traveler sizes available have become standard equipment in these mills. Twists include 2, 3, 4, and 6 ply threads of many denominations ranging from 8s to 70s. It has taken some experimental work to find the proper sizes for the given ring diameters and speeds involved. For some time this problem has been solved satisfactorily.

One greasing is advised per doff for nylon travelers running from 16 to 35 hours. As a consequence, the floors at Coats and Clark are clean with practically no greasy, slippery passageways.

Nylon travelers run smoothly, and their resiliency and pliability in preventing vibration is a noted quality. Since a heavier nylon traveler runs just as well as a lighter one, fewer sizes are needed when running numbers of larger denominations. Fewer end breaks and cutting are noted with these travelers.

CASE HISTORY REPORTS



CUSTOMER GETS WHAT HE BUYS. Accurate measurements are recorded and may be printed on a voucher at any moment during the measuring operation.

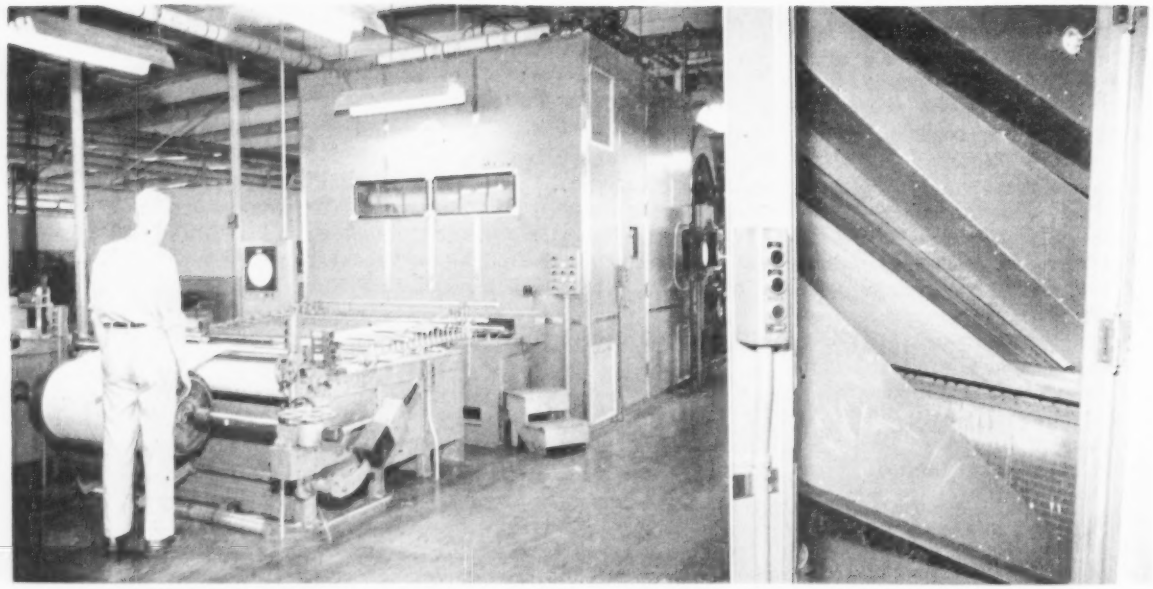
Yardage Meter Builds Customer Confidence

case 8

THE tags attached to rolls of fabric at Virginia Fibre Corporation, Petersburg, Va., are printed with the Trumeter trademark. This mill takes pride in the Trumeter trademark because it signifies to customers that they are getting exactly the number of yards which they pay for.

The printed tags have been used in this plant since the first Trumeter was installed, and the mill has received a number of complimentary comments regarding the value of the device.

Customers of the mill say that they realize the yardage meter is accurate and reliable and appreciate its value in assuring the correct yardage.



THIS HOT-AIR TYPE DRYER permits ticking warps to be processed at 40-45 ypm. Looking into unit through door, baffles and yarn sheet can be seen (right photo).

Air-Dri Slasher Jumps Production

case 9

ABOUT one year ago, Muscogee Manufacturing Co., Columbus, Ga., enlarged its weaving capacity and had to provide additional slashing facilities for wide tickings. This mill uses 16s and 14s cotton yarns to make 56" warps. The outlay for new wide looms was imposing; therefore careful consideration was given to conserve the outlay for more slashing facilities.

Muscogee purchased an Air-Dri slasher from West Point Foundry and Machine Company. The head end of an old slasher was rebuilt and used with the Air-Dri unit, thereby saving about $7,000 of the initial cost of a new slasher. The old slasher had two cylinders and did not have the drying capacity needed, especially for wide warps.

The new slasher unit operates at 45-50 yards per minute on 56" warps containing 5800 ends of 16s cotton yarn. Formerly, similar ticking warps were processed at a speed of 13 ypm on old slashers.

Hot air is circulated over steam coils and is forced around the strands of yarn by fans in the Air-Dri drying chamber. The yarn travels several feet after leaving the size box before it comes into contact with a roll, and the hot air partially dries the yarn before it comes in contact with the first roll, thereby preventing a "baked sheet" of yarn.

Moth Count Reduced 96% in Raw Wool Warehouse

case 10

THE average weekly moth count in a 3-million bale wool warehouse was reduced during a single summer season from 915 to 28.5 (a reduction of more than 96%) by using an insecticide fogging applicator dispensing a special solution.

The fog machine, known as TIFA (Todd Insecticidal Fog Applicator) also enabled the warehouse crew to cut its moth-elimination working time 97½%; from 20 hours for each application by an old fashioned spray method to a mere ½ hour each for two men.

The warehouse is a five-story building with an area of 94,200 cubic feet.

This reduction in the population of the destructive moth worm was accomplished at the Albany Felt Company's two huge wool warehouses at Albany, New York.

The fog machine was first used by the company on July 12th, 1950, and has been in continuous use from June through November ever since. At the time it was brought into action the weekly moth count, according to dead specimens lured

into special traps, had reached a peak of 1600. The first week that the fog machine was used to spread the moth-killing mixture through the warehouse the count dipped to 100.

For the remainder of the season the count never rose above 250, and the average for the season was 324, taking into consideration the pre-fogging counts. This was almost one-half the 1949 average of 600; 40% of the 1948 average of 840, and about 35% of the 1947 average of 915 when records were first kept. Improvement of techniques in 1951 cut the weekly average count to 76, with no week showing more than 150; and the 1952 season yielded the 28.5 average.

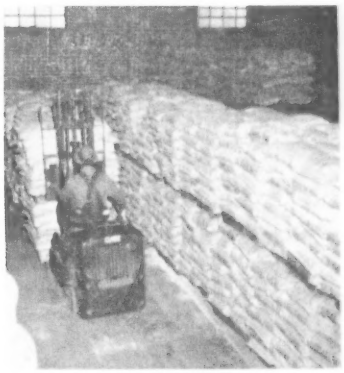
Fork Truck Triples Storage Space, Cuts Handling Time for Bulk Goods

case 11

ONE 2000 lb-capacity, Clark fork-lift truck used in combination with standard size, slat-type, double-faced pallets, has tripled the storage space and sharply reduced the handling time for bagged chemicals and fabric bales at the Hanes Dye and Finishing Company plant in Winston-Salem, N. C.

Previously, incoming shipments of bagged materials were unloaded, carried, and piled in storage by a crew of men. When needed, the bags were taken from the stacks and carried to the dyeing department—a daily process. With the present system 50-pound bags are palletized as received, and the fork-lift truck takes them to storage and tiers them two loads high. The fork truck supplies the dyeing department with 200 bags in 20 minutes, with a saving of 4 man-hours on the operation.

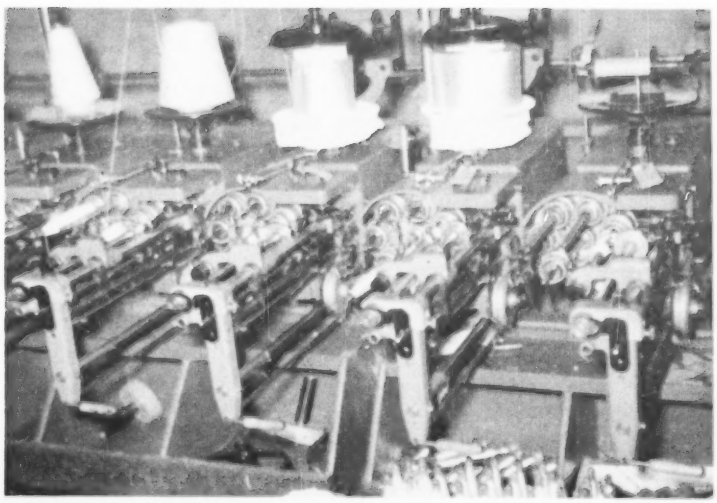
Similarly, bales of grey goods are handled two and three on a pallet, and the pallets are tiered in storage. The entire job is handled by the truck operator and a helper. As a result, up to three times the number of bales can be stored in a given area as was previously the case, and the saving in time amounts to approximately three man-hours for every hour the truck works.



FOUR MAN-HOURS SAVED daily on one job by use of this truck which supplies the dye department with 200 bags in 20 minutes.

Automatic Quill Winder Saves $9,360 Annually

case 12



LAST year a Canadian mill purchased two new Scharer (Switzerland) non-stop automatic weft winders, and here's what happened. Upon placing the machines in production, the new quillers were found to produce more than four times as many quills per spindle as the old machines.

For a number of years weft winding in this plant was done on the old type non-automatic winders. There were eight of these winders running on medium and heavy counts of filling, and five

← **PRODUCTION INCREASED** four times by new automatic quiller in one Canadian plant.

operators were required to produce enough filling.

These machines ran at 2200 rpm, and on 20s spun yarn at 100% production 40 quills were produced per spindle in eight hours. On 80 spindles, 3200 quills were produced per eight-hour shift.

On the new machines the speed is 4500 rpm, and on the same count of yarn (20s spun), 168 quills are produced per spindle per eight hours. On 20 spindles, 3360 quills are produced in eight hours as compared to 3200 quills from the old machines in eight hours. In other words, the new machines produce more than four times as many quills per spindle.

Furthermore, only one operator and a helper are needed as compared to five operators required on the old machines. This permits a cash saving in wages of $90 per week. On a two-shift basis, this saving amounts to $180 per week or $9,360 per year, so the investment was more than paid off in one year.

The quality of filling is vastly improved, bunches are more uniform, and the amount of waste is decreased, especially when running from cakes and on crepe yarn. Also, on the Scharer yarn can be run from cakes, cheeses, spools, cones, or tubes.

New Room Cleaner Improves Yarn Quality

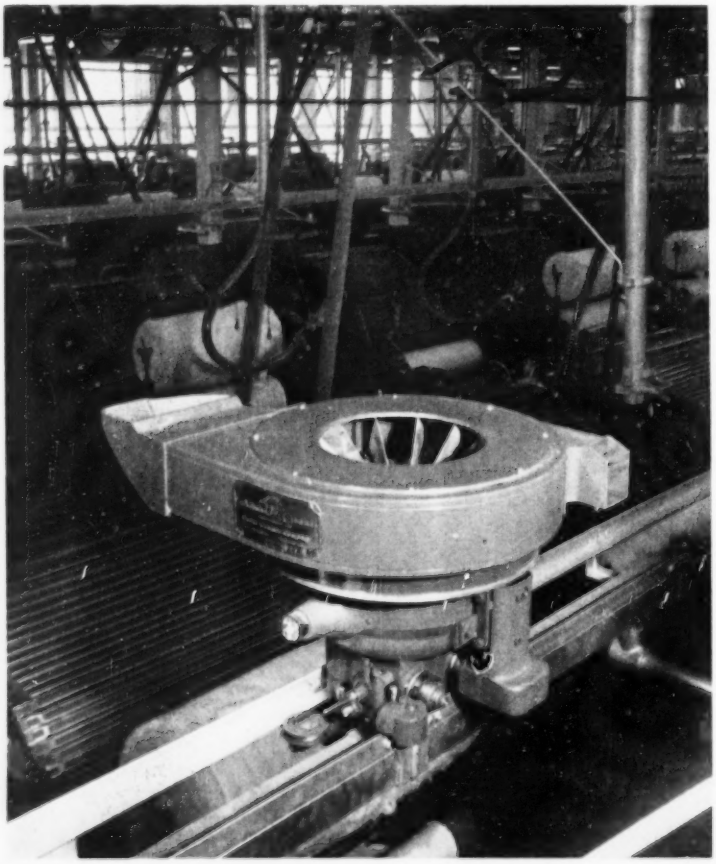
case 13

AS PART of a modernization program, Union Mills, Monroe, N. C., purchased a system of automatic overhead cleaners for the card room which has eliminated overhead blowing-down. The equipment is Parks-Cramer's new CTR-7 room cleaner.

T. M. Duncan, superintendent of the mill, summarized benefits of the new room cleaners and elimination of blow-downs during card room operation as follows:

(1) Better yarn quality,
(2) Saving in labor,
(3) Increased production,
(4) Cleaner card room,
(5) Improved employee morale.

CLEANER travels on double track supported by brackets fixed to posts and walls, largely eliminating need for supports from ceiling.



A decided improvement was noted in the quality of the yarn. The automatic room cleaner prevents lint from collecting on ceiling, walls, beams, posts, fluorescent fixtures, belts, piping, and other overhead objects. Since the need for blowing-down has been eliminated, there is a consequent saving in labor.

An increase in card room production resulted, since it is no longer necessary to shut down card room machinery for the purpose of cleaning overhead. This improvement in housekeeping has resulted in a decided improvement in employee morale. With the overhead surfaces neat and clean, employees take a greater interest in keeping machines and floor clean.

An improvement in spinning room efficiency has resulted through the reduction of gouts originating in the card room.

The CTR-7 room cleaner unit travels on double track mounted from posts and walls by means of angle brackets. This new method of track mounting results in a very neat installation, since it largely eliminates the need for supports from the ceiling.

The cleaner unit contains a

pressure type fan and produces several high velocity air currents directed at various angles to the vertical. The entire air distributor revolves continuously in a complete circle about a vertical axis as the cleaner travels along the track.

The combined motions of the air currents produced by the fan, by the revolving air distributor, and by travel of the unit along the track in alternate directions, assure complete and thorough overhead cleaning, even with tracks spaced farther apart than usual.

EFFICIENT PACKAGING OPERATION makes 9,000 completed sheet packages per 8-hour day, using two and two-thirds operators.

But for Automatic Wrapping Machines 15 Employees Would Be Needed

case 14

THE wrapping technique recently adopted by Utica-Mohawk Mills calls for rapid, efficient handling of many sizes of packages. An efficient packaging operation has been achieved in the Clemson, S. C., plant with the application of Hayssen automatic wrapping machines.

By using these machines as an integral part of packaging production line, two and two-thirds operators produce 9,000 completed sheet packages per 8-hour day, or 10,000 pillow-case packages. Using a hand-wrapping operation without the machines would require 15 additional employees, since in hand operation one operator can produce only 150 packages per hour.

Utica-Mohawk is operating two Hayssen machines on sheet packages and one on pillow cases only, with a fourth machine occasionally used for special long-fold packages, which are out of the range of other machines.

The packages produced for each type of product are uniform, stack easily for display, are readily identified by retail sales personnel. At the same time the product is presented attractively and is protected from dust and handling.

Transparent cellophane or Pliofilm is currently used as wrapping material, although the machines can be adjusted to use other heat-sealing films as well. Wrapping material purchased in roll stock form eliminates sheeting costs.

The count, lot number, size of sheets or pillow cases, are printed on the ends of the U-board to show through the wrapping material for ready package identification on the retailer's shelf.

Covering for Loom Take-up Rolls Proved Efficient

case 15

A CANADIAN mill had trouble with loom take-up roll covering. According to a management official at this mill, an advertisement appearing in TEXTILE INDUSTRIES magazine called attention to a product called "Texalox."

The advertisement offered a free trial, so the mill official decided to try it. The material was found easy to apply and very efficient in operation. Since that

time, the mill has applied Texalox to every loom roll that needed recovering. The roll covering has given complete satisfaction and the application in place of the usual covering has not altered the picks per inch in the cloth.

A surprising finding reported was that, although the new covering grips the cloth equally and thoroughly over its entire surface, no loose threads have been found clinging to it.

This Texalox material is made by the Carborundum Co., and is a strong, flexible cloth backing coated with granular particles. The surface appears to be sprayed with a light coating of metal to preserve the granular effect.

Electric Tools Speed Maintenance

case 16

ONE JOB MORE THAN PAID FOR TOOLS used by saving time in tapping harness top rollers.

FOUR multi-purpose electric Impactools at the Anderson, S. C., plant of Abney Mills, Inc., have speeded mill maintenance and reduced costs. One size 8U and three size 4U Ingersoll-Rand Impactools are employed in a wide variety of jobs including installation, modification, and repair of production machinery, electrical work, and carpentry.

Recently, the Anderson mill replaced the old spring tops on all the looms with harness top rollers. This involved tapping two holes in each of 2,000 rollers. The tools were used to tap the 4,000 holes of 5/16" dia to a depth of 1¾". Time saved on this job alone more than paid for the tools used.

According to master mechanic Joe L. Burriss, each tool is worth an additional man in his maintenance program. In other words, without the power tools he would need four more men to handle the work now accomplished by his present staff. In addition, the power tools have eliminated most of the fatigue associated with the more arduous jobs, permitting the experienced maintenance men to utilize their skills without physical strain.

Two of the tools are normally used in the shop on such jobs as disassembly and assembly of electric motors and repair of mill machinery. One typical job is repair of crankshafts for the looms. A different size Impactool is used to run the bolts that hold the crown pulley on the shaft.

Sock Finishing Expedited at Lower Cost with New Retort

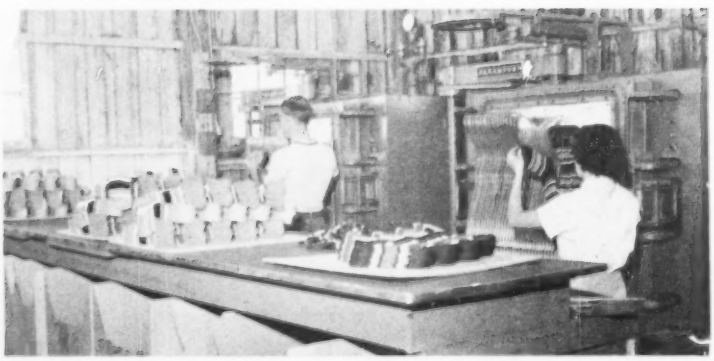
case 17

CLAIRELLEN Hosiery Co., Cleveland, Tennessee, a commercial hosiery finisher specializing in the finishing of socks made from synthetic yarns and blends, reports lower unit finishing cost and improved quality by using Paramount Duomold Model 35 retorts with Paramold cast aluminum forms.

Operators can board more forms in less space, minimizing waste motion with the 72-form 35 retort. The small steam chamber permits processing of goods at a low rate of steam consumption per dozen pairs, while hot air drying in the retort prevents wrinkles and eliminates mildew, an important factor when goods are stored and shipped.

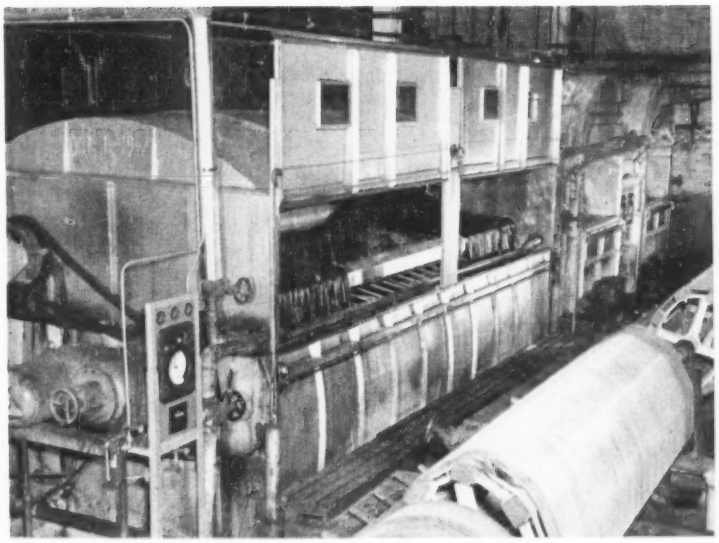
Sensitive, easy to operate temperature and pressure controls

LOWER UNIT FINISHING COSTS for hosiery permitted by hosiery retort.



eliminate seconds due to bleeding of dyestuffs as well as making possible processing of socks made from a wide range of yarns.

This plant has found that Paraflex boarding forms are flexible in use in that many styles can be boarded on one basic leg form, which means smaller investment in forms and increased rate of return on capital.



20% STEAM SAVINGS NOTED as a result of P. C. 12 program recorder controllers such as the one shown on one of the largest piece dye vats in the world at Botany Mills.

8% Increase in Production on Wool Scourers Equipped with Temperature Recorder Controllers

case 18

AN INSTALLATION of 30 temperature recorder controllers on five trains of wool scouring washers increased production about 8% at Botany Mills, Passaic, N. J. Each train consists of five washers, and a more uniform product was assured by eliminating excess grease. A 7% decrease in noils was noted, and the saving of steam was an incidental result, amounting to 20% over the past three years.

On the basis of this return on the investment, in 1949 Botany called in Gotham engineers to supply automatic controls for 48 units of piece goods and top tub dyeing equipment. Engineers from Gotham Instruments Division of American Machine and Metals, Inc., upon discussing the matter with Botany's dye foreman and chief engineer, designed the Gotham P. C. 12 program recorder controller to meet the various control problems encountered in tub and piece goods dyeing.

The P. C. 12 controller incorporates "add dye temperature" control, which brings the water in the dye bath up to set temperature and holds it. A light indicates when add dye point is reached.

By incorporating all recorded operating data, such as type and quality of dye, schedules, type of wool, identification of the piece, an order can be duplicated or checked even after goods have been sold.

Automatic controls for the dyeing program give the dyehouse operator more time to do other work. Otherwise, operations would be slowed or more help required.

Sixteen additional top dye kettles were installed in 1951, each with a Gotham program controller, and the same results of uniform, repeatable product, increase in production, and steam savings were evident after a year of operation.

Production per man hour has increased. This is due to the fact that the Gotham program controller follows exactly the prescribed dyeing operation as originally specified, eliminating too much sampling time. The initial cost of automatic control has long been paid for by the steam saving, labor saving, and increased production.

Vinyl Coating Protects Fans and Ducts

case 19

PLANT engineers at the McCormick Spinning Mill, Inc., at McCormick, S. C., solved the problem of protecting air conditioning ducts and fans from corrosion by applying a modified vinyl type coating material called Bisonite "M"—a product of the Bisonite Company, Inc.

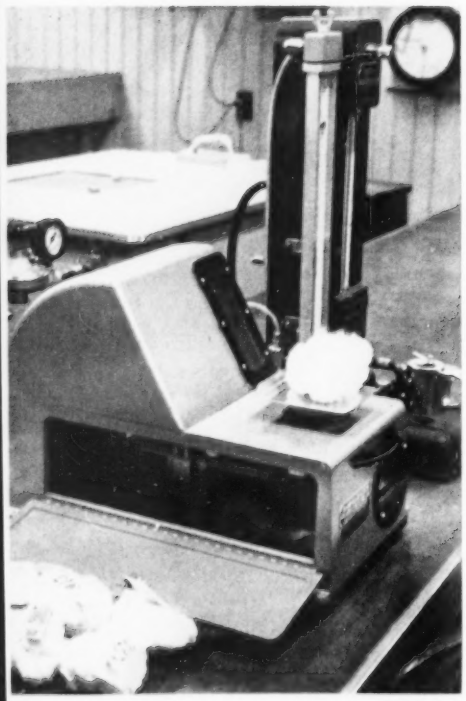
Several coating formulations were tried. The application procedure for the Bisonite was as follows: Sandblast; one coat Bisonite M100 primer; four top coats of the Bisonite M100 series in alternate colors, finishing with the color desired.

Alternate color top coats pro-

vide several advantages. They serve as a guide to the applicator for uniform work and the consumption of material. These coats eliminate the possibility of missed spots and aid in doing a complete job under sometimes difficult conditions of visibility. Damage may occur to coatings or in time the coating may wear by abrasion. A different colored undercoat showing through is an excellent and easily discernible signal for preventive maintenance.

Prepare Samples for Micronaire Tests in 30% Less Time

case 20



FORMERLY a mill using the Sheffield Micronaire employed scales of various kinds to prepare 50-grain samples to test for fiber fineness. This large southern mill purchased a Shadograph (made by The Exact Weight Scale Co., Columbus, Ohio) which cuts time by 30% in preparing samples for the Micronaire. In other words, the new machine only requires 70% as much time to do the same work in preparing samples.

Formerly, two persons were required to weigh and measure 500 samples a day (not full time). Now one person can handle 500 samples per day.

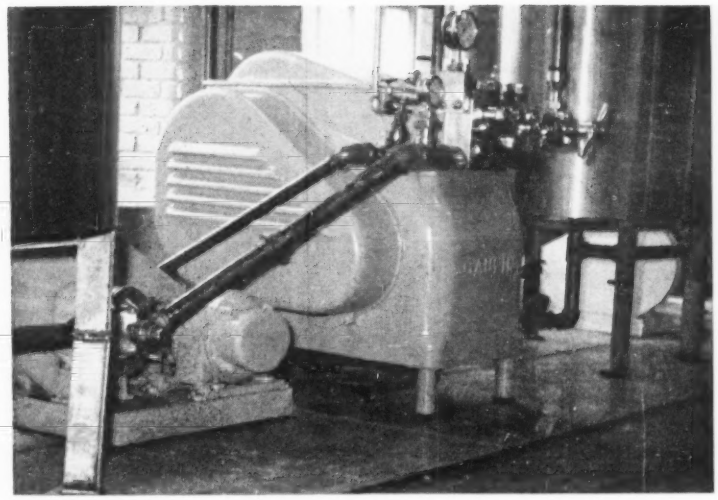
The operator likes the Shadograph because it does not fluctuate with air currents in that the balances and mechanisms are fully enclosed in a metal cabinet. The calibration may be altered to weigh any given amount from 0 to 100 grains. Weights may be added to extend the range to 2000 grains in one-grain units. The Shadograph cost $227, and in this instance the cost will be amortized in approximately one year. The scale automatically zeroes at the weight set on the mechanism, provided the sample weighs exactly that amount.

The illuminated scale shows the number of grains the sample varies from the desired weight, plus or minus 15 grains. No maintenance has been required to date, and also no disadvantages have been noted in using this piece of equipment, which has been in service two years. The Shadograph is readily available, and in this instance is producing results well worth while. The Shadograph appearing in the accompanying illustration is Model 4104-A. Several different models are available.

←

SHADOGRAPH MECHANISM is fully enclosed in metal cabinet, as shown in this photo which was made from the left side with the door open to show balance arm. Result is that air currents in room do not cause instrument to fluctuate when weighing cotton samples.

ILLUMINATED SCALE (left photo below) shows number of grains the sample varies from the desired weight within limits of plus or minus 15 grains. How the Shadograph is used alongside the Micronaire is illustrated in the photo at the right. Lab technician at extreme right is weighing samples by the time-consuming method formerly employed.



25% REDUCTION IN STARCH CONCENTRATION and use of thick boiling starch made possible by homogenizers.

Homogenizers Cut Size Costs and are Amortized in One Year

case 21

ALICE Manufacturing Co. installed Manton Gaulin homogenizers and was enabled to use pearl (thick boiling) corn starch. Starch concentration was reduced 25% after putting in the homogenizer, a factor permitting a marked reduction in the cost of each kettle of size made, and a similar reduction has been effected in overall starch consumption. These facts enabled the firm to pay for its installation in considerably less than one year.

The installation in the Alice plant at Easley, S. C., was made in July, 1952, and the results were so satisfactory that another unit was installed in the Arial plant in October, 1952. This company has purchased a third unit for the Elljean plant which is now under construction. All of these mills manufacture high grade print cloths.

These mills formerly used a highly modified thin boiling corn starch. In addition to the savings in sizing costs permitted by the homogenizers, the Alice Manufacturing Co. has found that it is securing smoother warps which are more uniformly sized than before, and these factors have enabled them to show an overall reduction in their warp stops per hour.

These installations were made over a weekend. Each of the mills has approximately 1,200 looms, and each has one 300-gallon-per-hour Gaulin homogenizer which prepares all of the warp size. It was found that due to the considerably shorter time cycle to prepare homogenized size that only one cooking kettle was needed to make all of the size where two were formerly required. This gave more space in the slasher room, reduced the amount of steam used to prepare the size, and gave the slasher foreman more free time for other duties.

How Can You Level Machines If Spirit Level is Inaccurate?

case 22

THE accuracy of the spirit levels used in one plant to check on machinery setting was questioned after a plant engineer observed a skilled card grinder using one. The level in question was commonplace, having a vial with two marks, and the mechanic was basing his work on the machinery being level within proper limits when the bubble was between the two marks.

To check the sensitivity of the level, a 14/1000″ card gauge was put under one end of the level while it was resting on a card frame, and the bubble did not move out of the marks. This lack of sensitivity meant that with a level 12″ long and a card approximately four feet wide, the card could be 56/1000″ high at one end and the level would fail to show the condition.

If you wish to check the levels you are now using, set the level on a machine surface and slip feeler gauges under one end. Increase the gauge thickness to see how many thousandths it takes to make the bubble move. Then determine how far the bubble moves for each 10/1000″. The shims required in a shaft of known span between bearings can be figured from the level readings by simple proportion, and less time will be consumed in making the settings.

For example, consider a level that has been graduated so each division equals 10/1000″ per foot slope, and the level is applied to a shaft with four ft intervals between bearings. The level is out two graduations, which equals a slope of 20/1000″ per foot. In a four ft span, this is a total of 80/1000″, and if a shim 80/1000″ is put under the low bearing, the shaft will be true. The same applies to shafts of any span.

formation upon which this article, written by a textile plant engineer, is based was furnished by the L. S. Starrett Co., Athol, Mass.

Multi-Purpose Grease Cuts Machine Maintenance and Lubrication Costs

case 23

INDUSTRIAL Rayon Corporation's Painesville, Ohio, plant has for the past several years been engaged in a continuous program of research to minimize machine failures resulting from faulty lubrication. One of the highlights of the company's lubrication program has been the use of Alvania lithium base grease made by the Shell Oil Co.

This multi-purpose grease is used for the following basic reasons:

(1) To reduce the excessive cost of special handling of the six greases previously used.

(2) To reduce bookkeeping and inventory costs, and to obtain the economic benefits of buying one type of grease in greater volume.

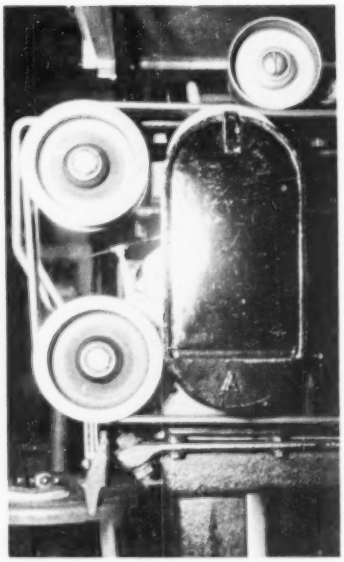
(3) To cut down on time, cost, and equipment involved in dispensing grease to several thousand machine tools and functional units spread over wide plant areas.

(4) To reduce storage area and simplify transfer of grease from main storage to sub-storage areas in the test cell and mid-plant manufacturing locations.

(5) To get longer bearing life, reduce grease consumption, and extend the lubrication periods.

One of Industrial Rayon's early applications of this type of lubricant was on the coners. There are more than 25,000 lubrication points on these machines, and most of these are drive and idler pulleys. Bearing failures occurred weekly with a consequent loss of production before Alvania grease was adopted. Although lubrication intervals had been set at six months, the actual interval between greasings was closer to six weeks.

Upon application of Alvania, lubrication schedules are on six month intervals. Furthermore, Industrial Rayon has experienced no bearing failures since switching to the new product.



PULLEY BEARING FAILURES WERE ELIMINATED on coners by using proper lubricant. These pulleys are fitted with porous bronze bearings.

Underfeed Boiler Stokers Save $5800 Annually

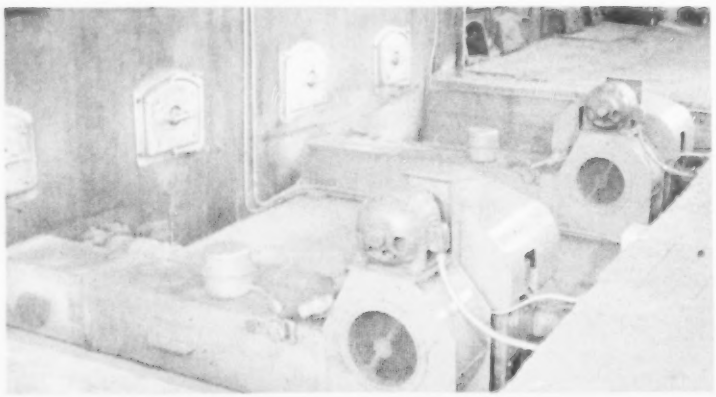
case 24

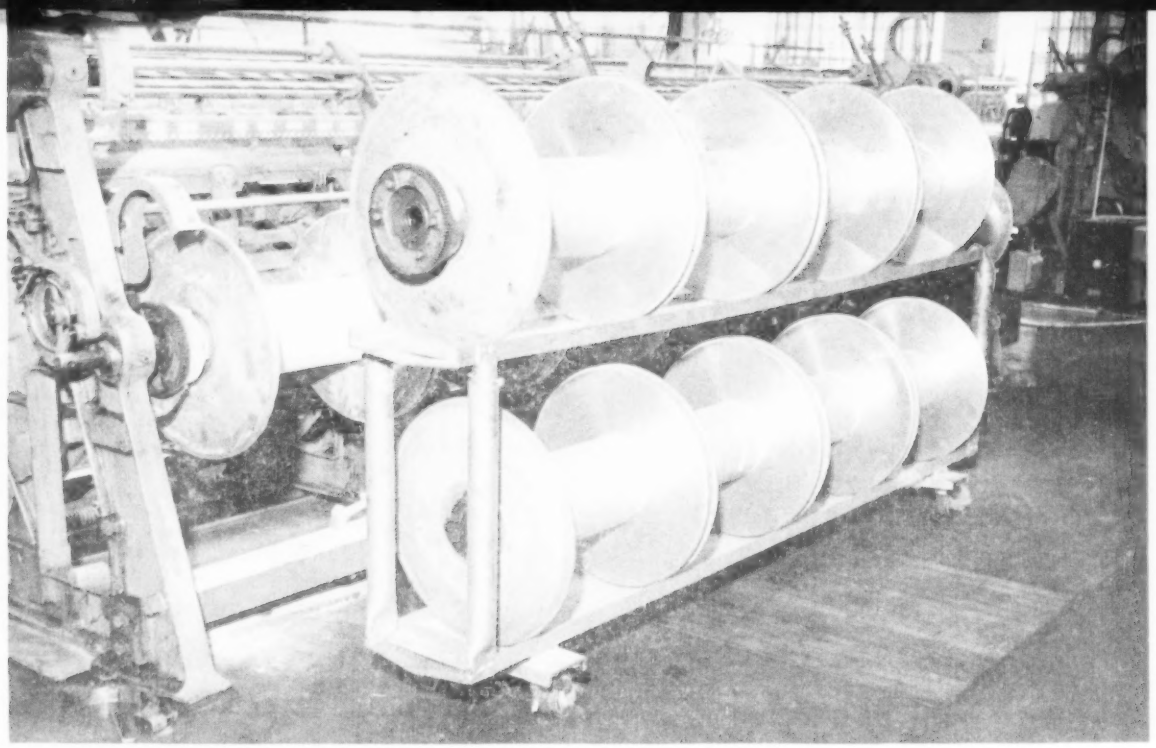
TWO Iron Fireman Coal-Flow underfeed stokers in boilers producing steam for processing and heating have saved $3,016 in one year at Reeves Brothers, Inc., Chesnee, S. C., mill. These stokers were installed in January, 1951, and savings in fuel and labor were analyzed recently by J. H. Wyatt, assistant treasurer of the company.

Before installation of the stokers, fuel costs for this mill amounted to $13,416 annually; these costs have been cut to $10,400, with a saving in direct fuel expense alone of $3,016 annually. Mr. Wyatt noted in his analysis: "Labor for firing the boilers has been reduced from $187.68 per week to $134.04 per week." This is a labor saving of $2,789.28 a year, or a combined annual total of $5,805.28.

"Due to the automatic operation of the Iron Fireman equipment," Mr. Wyatt said, "the amount of steam produced is more closely related to the demand. This gives us peak production of steam when needed, and eliminates excess firing during the periods of low demand. As a result, the boiler efficiency is improved, and the consumption of fuel is reduced."

$5800 SAVINGS IN FUEL AND LABOR effected by installation of Iron Fireman coal-flow underfeed stokers at Reeves Brothers' Inc.





BEAMS ON TRUCK ready for immediate installation. Note gears already mounted on beams and short warps wrapped in paper for protection.

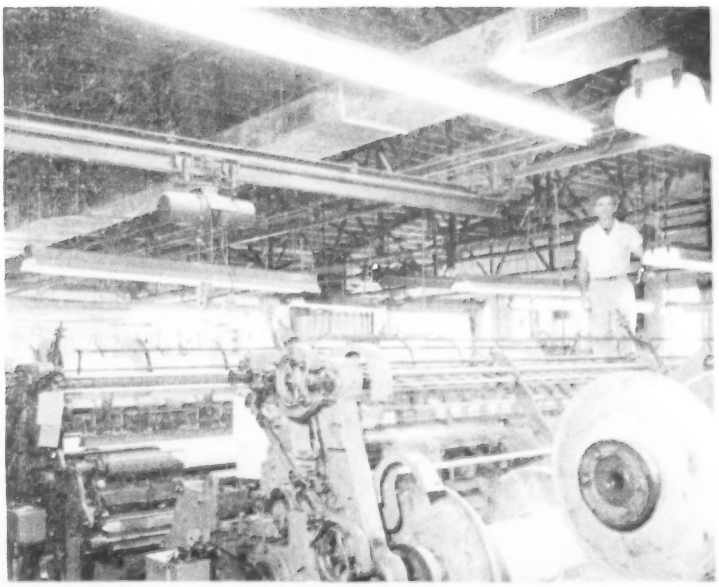
Spare Tricot Beam Trucks Save Time at Warp Change

case 25

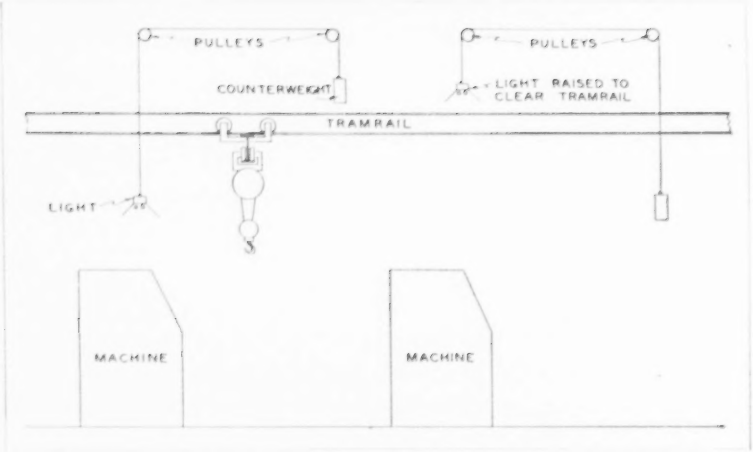
SPARE beam trucks were built to accommodate extra sets of warp beams for tricot machines at one progressive knitting mill. These trucks save 1½ hours time at every warp change on each tricot machine.

The trucks are of simple design (see accompanying illustrations), and may be easily built in the mill shop. These trucks permit the complete warp to be assembled and made ready, with beam barrel and gears, for installation on the tricot machine before the machine is ready for a change in warp. Now the only operations necessary at the warp change are the removal of empties and replacement with fulls. This system thereby eliminates the need for any disassembly, gear changing, and other operations while the machine is stopped for warp change.

Formerly, when the tricot warp ran out, the old beams had to be removed. New (full) beams were



OVERHEAD TRAMRAIL system permits quick and easy beam changeover and eliminates manual lifting of beams. Note lighting fixture has been raised out of path of oncoming tramrail hoist.



COUNTERWEIGHTED LIGHT FIXTURES are easily moved up and down to accommodate movement of the tramrail hoist which eliminates manual lifting in changing beams.

placed on the floor behind the machine, and the beam barrels had to be removed from the empty beams and inserted in the full beams. The beam-driving gears al so had to be removed from the empty beams and installed on full beams. This way of changing beams permitted a lot of wasted time and lost production while the machine was stopped for the beam change. The new way of doing the job is much more efficient in tha. the fresh beams may be prepared by an operative while the machines remain in production.

Tramrail Helps. To permit quick and easy beam changeover and to eliminate manual lifting of beams, an overhead tramrail system was installed at this mill (see illustration). Modern lighting had already been installed in this modern mill structure, but the lights were located at a level in conflict with the tramrail layout.

The problem was solved by attaching counterweights and pulleys to each lighting fixture to permit an operative to easily raise each fixture out of the path of the tramrail when a move is necessary from one machine to another or from one part of the plant to another. The change was relatively inexpensive, and the desirable level of light intensity at working level remained unchanged.

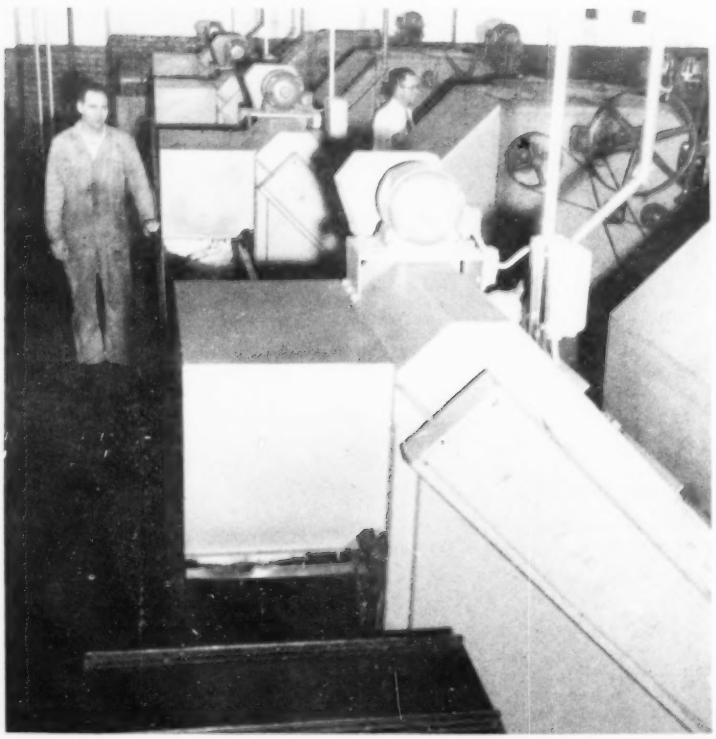
Roxboro Cleans Better with Pre-Openers

case 26

AN INSTALLATION of four Superior pre-openers and cleaners at Roxboro Cotton Mills, Roxboro, N. C., brought an increase in the amount of waste removed at the vertical opener. Tests were conducted to determine the effects of the installation, and the test results showed an increase of approximately 75% in cleaning efficiency.

Refuse from Superior pre-openers and cleaners consists of motes, fly, dust, large and small leafy particles, and other light objectionable foreign matter. Cleaner and more open stock was delivered to the pickers in this mill, and the stock reaching the cards contained less peppery trash.

Additional machining of the cotton caused no ill effect in that the production through the pre-openers and cleaners was at a low rate



75% IMPROVEMENT in cleaning efficiency shown by new pre-openers and cleaners.

(85 lb per hour).

Before the change the cleaning line included four blending hoppers, one mixing hopper, one beater running 750 rpm, one vertical opener running at 500 rpm, and a small lifting Gyrator. This system handled 332 pounds per hour, and the test accounted for 264 hours.

The beater averaged 6.4 ounces of waste per hour, the Gyrator produced 1.7 ounces per hour, and the vertical opener 26.6 ounces of waste per hour.

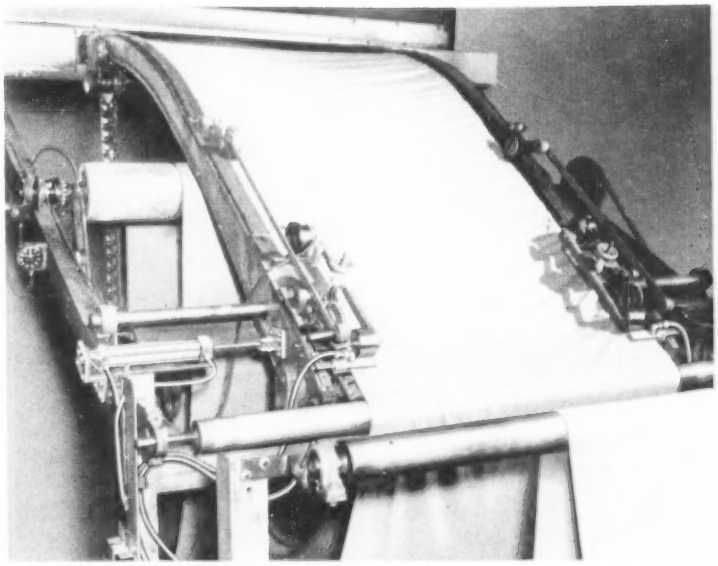
After installing the pre-openers and cleaners, the average was 6.4 ounces of waste per hour on the beater, 1.3 ounces per hour on the Gyrator, and 28.8 ounces per hour on the vertical opener. From pre-openers and Superior cleaners, the average was 24.2 ounces of waste per hour.

Cloth Guide Permits Increase in Tentering Speed

case 27

A NEW England woolen mill installed an Askania Pneu-Draulic cloth guide on the tenter frame, and now the full capacity of the dryer is utilized. As a result the mill can operate the tenter frame up to the full capacity of the dryer. Waste is minimized because the control quickly follows fast runouts, such as bad seams. More useable cloth is produced since pins engage cloth within ⅛" of selvage.

In this system the sensing device does not touch the cloth, and slackness of the cloth does not greatly affect accuracy. A breath of air blown across the selvage gives a precise measurement of selvage position. This measurement is multiplied hydraulically into forces that position the guide rails rapidly and accurately. Response to runouts is faster because the force is applied through low-inertia hydraulic cylinders.



FULL DRYER CAPACITY UTILIZED upon installation of this cloth guide on tenter frame.

This mill formerly operated a pin-type tenter equipped with a conventional cloth guider. The operating speed of the dryer was limited by the correcting capacity of the guider so that the full drying capacity of the equipment was not utilized. The prevailing conditions caused excessive vibration and swinging of the guide rails, and oftentimes the cloth ran completely off the pins or all the way into the sprocket chains.

Automatic Hand Dryer Cuts Overhead in Several Mills

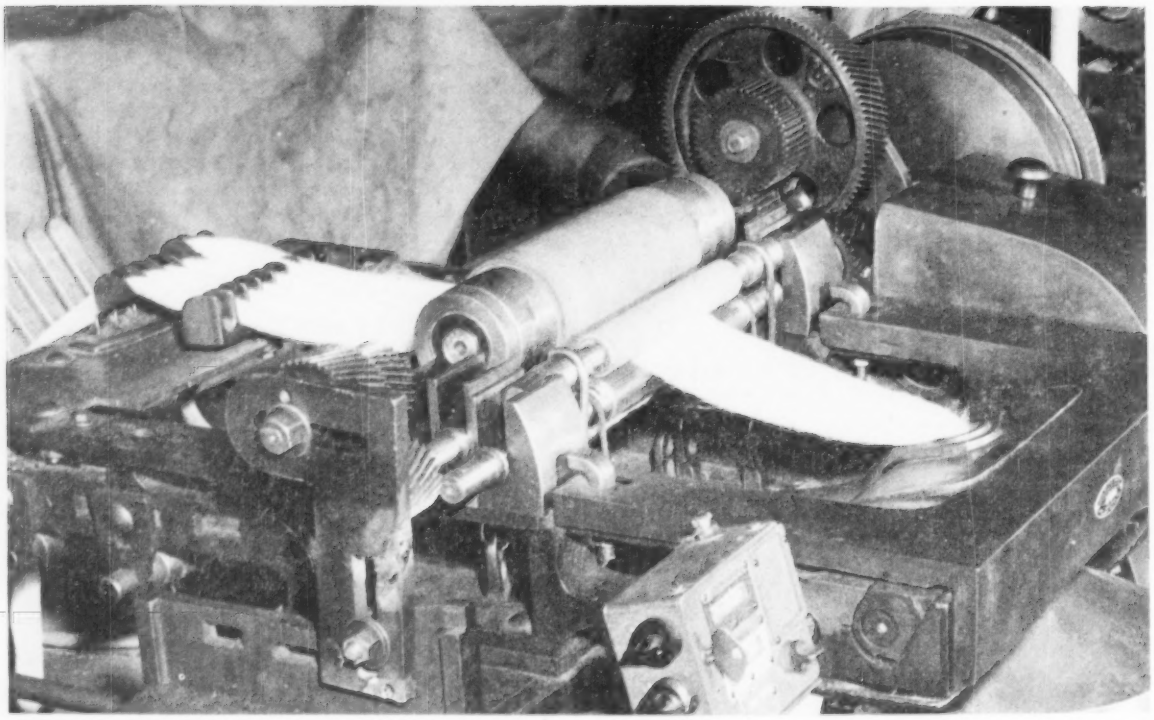
case 28

SEVERAL companies have been able to write off the original cost of National automatic hand dryers in one year as well as eliminate the problem of lavatories cluttered with discarded towels.

Some of the plants in which the dryers are used include Nescopeck Knitting Mills, Johnston Mills, Joanna Cotton Mills, Berkshire Knitting Mills, and R. K. Laros Silk Co.

Managements report improved employee relations after installation of automatic hand dryers because these dryers do not remove the natural oils in the skin.

A test conducted by the U. S. Public Health Service to determine the merits of air drying revealed that there was "a significant reduction of gross contamination of the hands when the mechanical air dryer was used."



SLIVER NON-UNIFORMITY REDUCED to 60% of previous figure. Improvement effected by this 2 over 3 drawing.

2 Over 3 Drawing Reduces Sliver Variation

case 29

MAYFAIR Mills No. 2, Arcadia, S. C. have reduced their drawing sliver variation with Fitex (2 over 3) drawing. Prior to the installation of Fitex finisher drawing, Mayfair's finisher drawing sliver averaged more non-uniformity than the breaker drawing sliver fed to it. With this new finisher drawing, Mayfair reduced its finisher drawing sliver to 60% of the previous non-uniformity figure, and the finisher drawing sliver is 25% lower in non-uniformity than the breaker drawing sliver fed to it. Breaker drawing is conventional four-roll cushion top in good condition.

Another South Carolina mill has obtained comparable results, and both mills feel that this reduction of drawing sliver variation has been beneficial. In addition to this quality improvement, maintenance costs are reduced due to fewer rolls, bearing slides, and gears on the frames.

The Fitex 2 over 3 drawing is made by The Tritex Corporation, Lanett, Alabama; formerly it was made by the Mechanical Division of Southeastern Engineering Company, West Point, Georgia.

Heat Reclaimer Cuts Hot Water Power Requirements 50%

case 30

A WASTE water heat reclaimer installed at Bangor Mills, Inc., Pen Argyl, Pa., reduced the horsepower required for generating hot water by approximately 50%. Furthermore, this installation brought about improved operating conditions by making more steam available for other services or for additional equipment. This reclaimer unit was supplied by The Patterson-Kelley Co., Inc., East Stroudsburg, Pa.

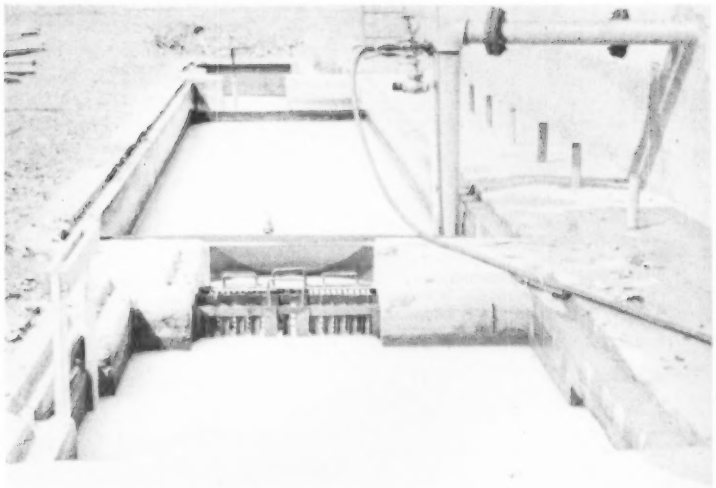
Increased productivity was noted upon reducing the process time permitted by an abundance of available hot water. Fuel savings for the period from April 1, 1952, to June 30, 1952, before re-

claimer was installed, compared to the same period in 1953, after installation of the equipment, amounted to 117,459 gallons of fuel oil, or an average of approximately 1,110 gallons per day.

Lower operating costs were directly tied to fuel savings for the forementioned period, a figure amounting to $7,635.00, or $72.00 per day. Cost of the reclaimer was $3,598.00; cost of installation, $1,500.00 to $1,800.00 maximum.

Waste was reduced by this reclaimer in that the pit and strainer settles out materials in suspension in waste water (tapes, threads, and goods lost through vats and having reclaimed value). Sewer lines are kept free and do not get clogged.

An improvement in quality has been noted in that the introduction of hot water to vats (where formula permits), instead of heating cold water in vats by direct steam injection, eliminates spotty quality in dyed goods, and improves tensile strength of finished material.



HEAT RECLAIMER SAVES $72.00 PER DAY in fuel costs alone. Reclaimer pit shown flooded and in operation.

Clutch Provides Easy Machine Starts. Cuts Maintenance. Increases Production

case 31

MERCURY clutch installations on Noble combs at Lymansville Worsted Company, Providence, R. I., show no appreciable heating of the motor or clutch during jogging to set up the work. The clutch accelerates the load in four to six seconds without shock, preventing damage to the intricate machine mechanism.

These machines were converted from line shaft to individual drive in an effort to achieve shockless starting and prevent excessive heating of the motor while jogging. When the 5 hp individual motor drives were installed, a standard EM-18 Mercury clutch was mounted on each motor with appropriate sheave size to obtain the desired speed and to achieve shockless starting.

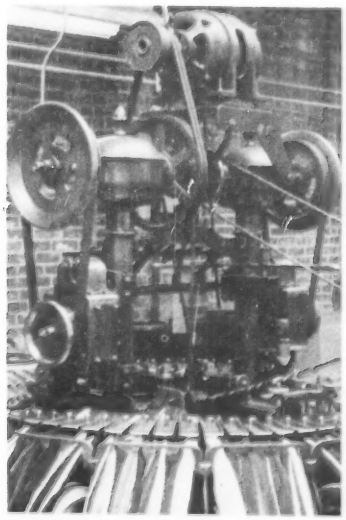
WOOLEN cards at a Massachusetts mill utilize Model 657-C Mercury clutches on each individual card drive to reduce the current drawn by the motor during starting and provide a smooth application of motor torque.

These Model 657-C clutches have been in operation since 1948, providing smooth, gradual acceleration of the load. Starting current was greatly reduced, thereby saving motors and down time, and permitting an increase in production. Shock loads due to sudden starts no longer put strain on the gear reducer.

HATHAWAY Manufacturing Co., New Bedford, Mass., embarked on a program to reduce end breakage so that spindle speeds could be increased on cotton spinning frames. This objective was accomplished with a standard Series E Mercury clutch which was applied with the individual drives for each frame.

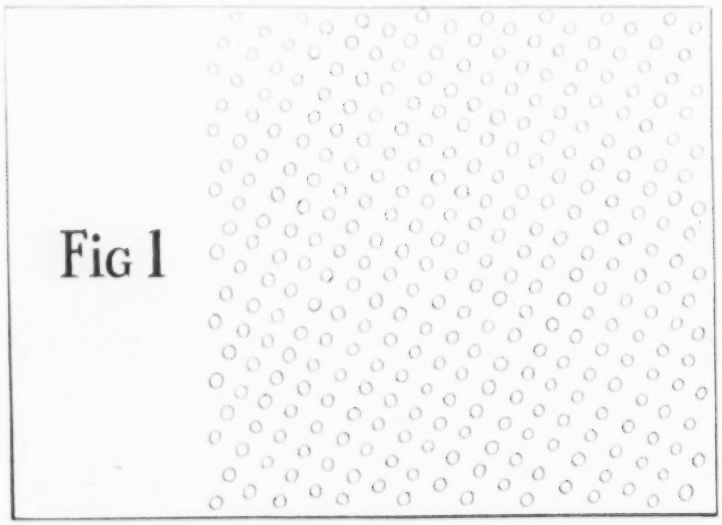
Due to the smooth start of the machine through the clutch, end breakage was reduced to the point where the spindle speed could be increased by 300 rpm. Ends down were drastically reduced, especially after doffing.

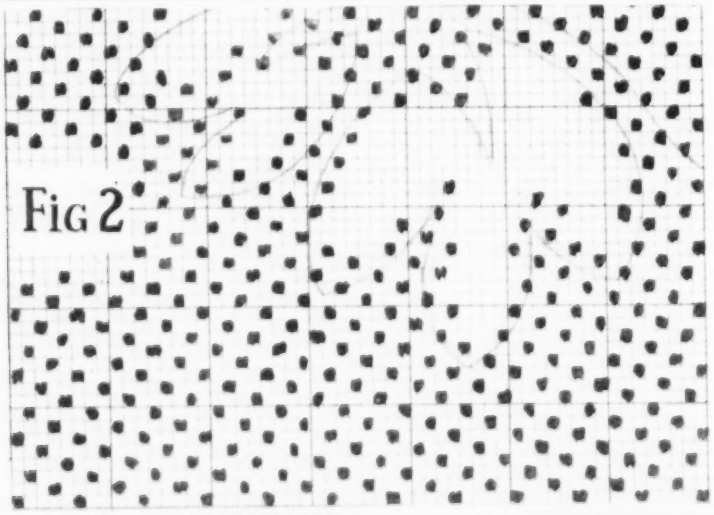
MOTORS DO NOT HEAT when jogging or accelerating Noble combs equipped with clutches.

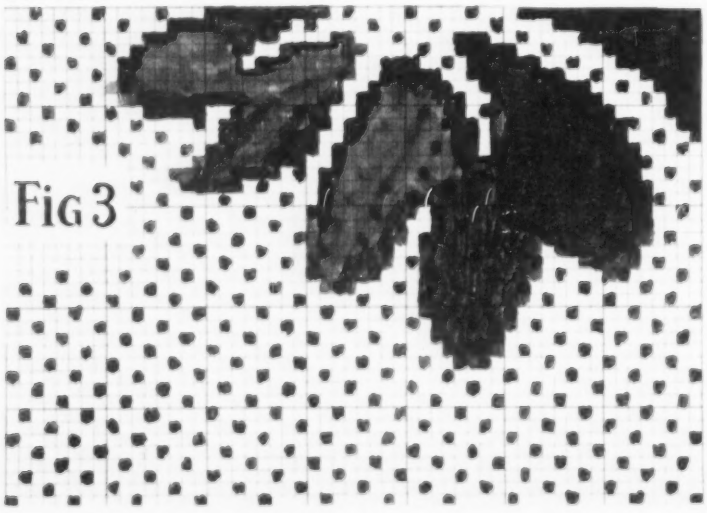


Stencils Will Simplify Your Jacquard Designing

case 32







THE use of stencils for Jacquard weaves will often permit a Jacquard design to be painted in one-fourth of the time, or even less, than would be required for painting by hand in the usual manner. These stencils also entirely eliminate the occasional errors that occur in hand work. Stencils are inexpensive and easy to make, and will last for a long time.

Many types of Jacquard designs require long tedious hours of painting in the various weaves on the design paper. This is particularly true of figured table linen, upholstery, drapery damask, bedspreads, tie silks, dress goods, and similar fabrics. While some design papers are made on which certain standard weaves are printed, these are not always available in the correct size of paper and the weave desired. Also the printed weaves will show through in the painted portions of the design and are often confusing to the card cutter.

To simplify the job, stencils are made with a piece of celluloid, or similar transparent plastic, about eight inches square. The portion of the weave to be stencilled will be about six inches square in the center of the celluloid, and should be made with a complete repeat multiple of the weave both top and bottom and also sideways.

The weave to be stencilled will first be painted on a piece of the correct size of design paper, also as a six-inch repeat. This design paper is then fastened down on a block of wood and the celluloid square firmly secured above it. Then with a small hand drill, using the correct size of bit, holes are drilled in the stencil to show the weave selected. It will probably be necessary to lightly sandpaper both sides, but particularly the back, of the stencil after the holes are drilled. Fig. 1 shows a diagram of a portion of a stencil made for a 5-harness satin on 8x8 design paper.

The method of using the stencil is as follows: The pattern is first sketched on the design paper in the usual way. The next step is the

stencilling of the weaves. Most designers prefer to use English vermillion tempora color for this type of work. An almost dry cake of this paint is prepared in a saucer or other suitable receptacle. A regular stencil brush, readily obtained from any artists' supply store, may be used. Carefully placing the stencil on the design paper so that the weave holes fit the printed squares, the weave can be readily stencilled through to the paper.

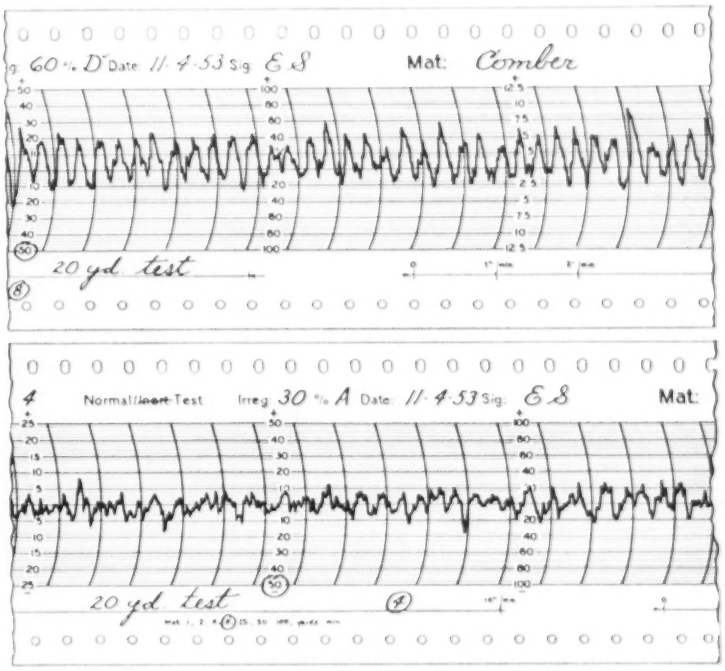
Probably a certain amount of practice will be necessary in order to become proficient at this. Care must be taken to have paint of the right consistency, not too dry, but if it is too watery it will tend to run on the design paper. By shifting the stencil when each portion is completed, it is possible to cover a whole sheet of design paper in a very few minutes.

The best practice is to stencil the ground weave first. The ground weave will be permitted to overlap the pencil line of the figure portions. After the ground is stencilled the figure will then be painted in the usual way, using the same color of paint as the ground. When the figures are painted in, the stencilled weave in the figure portions will be covered over, leaving the ground with the weave completely stencilled in. Fig. 2 shows a portion of a Jacquard floral design with the ground satin weave stencilled in and ready for the figure to be painted. Fig. 3 shows the same design with the figures painted and ready for the figure weaves to be inserted.

If the figure portions are small, it will probably be simplest to paint in the weaves with a brush in the usual way. If, however, they are large and offer sufficient scope for a stencil, they should be stencilled in as follows:

First paint by hand the weave around the edge of the figure, probably using black paint, and if necessary fit the two weaves (ground and figure) together by shifting certain portions of the weaves in the customary manner. Then, having previously prepared the necessary stencil, the weave will be stencilled in all the open spaces of the figure portions.

After use, any surplus paint should be wiped off the stencils, and after drying they can be stored for future use. There are, of course, some weaves such as crepes that cannot be cut into a stencil, but many standard weaves, such as the satins, can be done in this way, and they are the weaves mostly used in these types of Jacquard designs. The increase in accuracy and the reduction in time required to paint a design will make the use of weave stencils well worthwhile.



POOR SLIVER WAS IMPROVED. Fig. 1 (top chart) shows evenness before corrective measures were taken. Fig. 2 (bottom chart) shows definite improvement after combers were adjusted.

Evenness Tester Effects Quality Improvements

case 33

THE Uster evenness tester has proved effective in studying and solving problems involving evenness at Gastonia (N. C.) Combed Yarn Company. James Heavner, laboratory supervisor at this mill, has reported that the stimulus to laboratory efforts produced by the Uster tester has provided a flood of data from many manufacturing processes.

In one instance involving the combers, the tester was utilized to determine the evenness of the sliver. The recorded data both before and after machine alterations appear in the accompanying illustrations.

Fig. 1 shows the test results before any corrective measures. These data show that the evenness of the combed sliver was poor. All settings on this comber were checked systematically, and corrections were made on all settings that were found incorrect.

Fig. 2 shows the test results after the corrections were made, and it is clearly evident from these results that the evenness was greatly

improved, although there is still room for more improvement. As long as the evenness remains at this level in the combed sliver and is controlled through the finished product, the finished product will show a great improvement also.

Prior to purchase of the Uster tester there was comparatively little data that dealt with the evenness in the manufacturing processes of sliver, roving, and yarn. The new testing machine has more than paid for itself in terms of improvements in the processes.

Compact Bleach Range Saves $100,000 Annually

case 34

AT Fruit of the Loom, Pontiac, R. I., Division, a new compact bleach range was installed in a limited space. It was necessary to engineer the range to fit into the space available which required the saturators and scrays to be set within the radius of the J-boxes.

Cook-P&N Machine Co., Inc., Boston, Mass., made the equipment, and the total area of floor space used to install the singer, desize J-box, acid J-box, caustic J-box, peroxide J-box, acid saturator, caustic saturator, and peroxide saturator was 15 ft x 53 ft.

This installation was made by eliminating all mild steel from the J-boxes and the saturators, including the supports. Elimination of these supports, which were replaced with the Cook stainless steel self-supporting methods, increases the accessibility of the equipment to the operator.

The new bleach range has been in operation for more than a year, and the pertinent data are as follows:

Labor saving is approximately $100,000.00 annually.

Degree of whiteness obtained: 94.4.

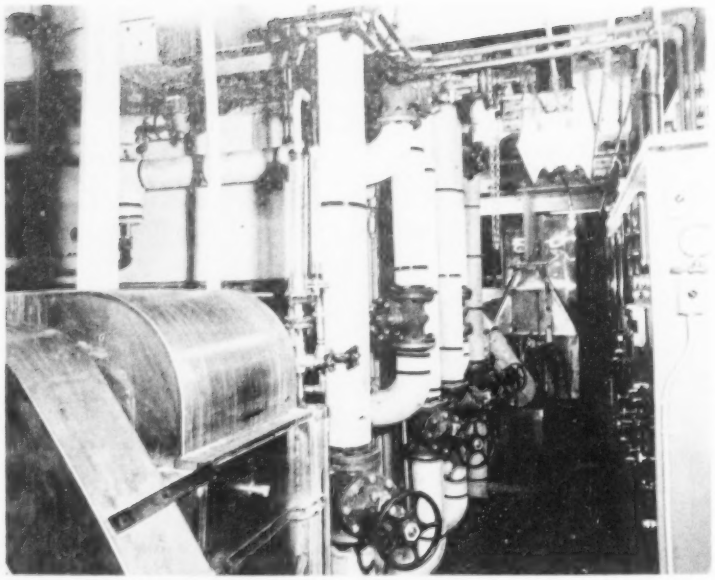
Cumulative efficiency: 91.6%.

Weekly production 5 days: 2 million yards.

Average weight of grey: 4.28 yards per pound.

Return on investment: 30%.

Reduction in waste: 63%.



SELF SUPPORTING CONSTRUCTION permits operator easy accessibility to the equipment. Peroxide saturator is inside the radius of the J-box which is self supporting without massive structural steel supports.

Hosiery Mill Nylon Losses Reduced 75%

case 35

THE precision control provided by a Servel air conditioning system has permitted Macon (Ga.) Hosiery Mills to hold down-time on full-fashioned machines to a minimum, and nylon spoilage has been reduced 75%.

Formerly the air in this plant was too moist, and the size on the nylon yarn became sticky and shedded in some instances, causing the yarn to jerk. This condition resulted in spoilage and imperfections.

Different types of equipment were tried to control the temperature and humidity in this plant. Everything from exhaust fans to heaters was tried. The complete solution to the problem was not forthcoming until the management at Macon Hosiery Mills installed a Servel air conditioning system, consisting of ten 5-ton refrigeration units powered by steam from a gas-fired boiler. Now the yarn is neither too wet and sticky, nor too dry and brittle.

Mills Find Use for Special Fork Truck Attachments

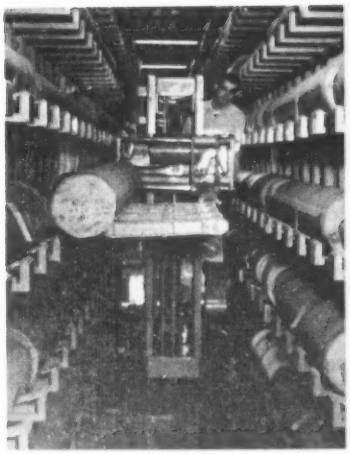
case 36

LIFTING, shifting, storing, stacking, and shipping rolled carpets and other "round shaped" containers has been made easy by several attachments for fork lift trucks, according to reports from several mills. These attachments are made by the Automatic Transportation Company, Chicago, Ill.

A side-loading carpet roll handler permits handling carpets and rolls up to 12 feet long for tiering on each side of a 40-inch wide aisle. This attachment has 600-lb capacity.

A clamp attachment handles two drums of varying weight and size, depending on capacity of truck. This type of attachment has been found adaptable to "side-shifting" mounting for use in "tight" storage areas.

Mills have found that one important factor regarding these attachments is the short installation time required for each unit.

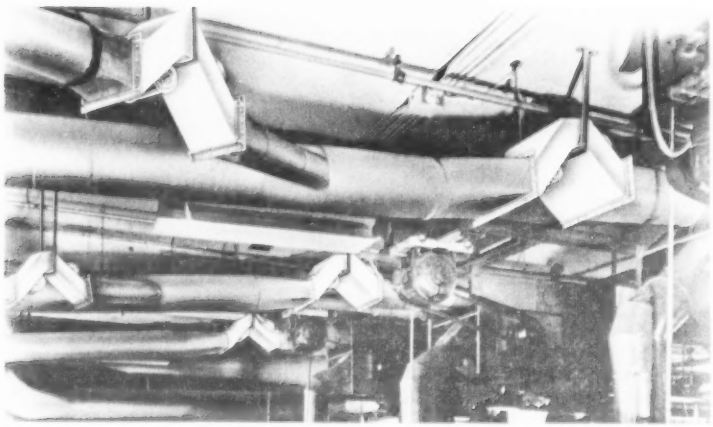


TIERING ROLLS up to 12 feet long on each side of a 40" aisle with a fork lift truck equipped with the side-loading carpet roll handler.

Magnetic Humps Prevent Fires

case 37

ABNEY Mills (S. C.) eliminated frequent and costly "flash" fires, caused by spikes, travelers, and other tramp iron striking against processing equipment, by installing five Eriez patented magnetic humps in pneumatic pipelines between the opening room and pickers and also between waste hoppers and the central pipe to pickers.



The hump magnet abruptly diverts the flow of material, twice throwing it against the face of the included magnets which trap the pieces of tramp iron from the flow of material in process.

Before the magnetic humps were installed, Abney Mills reported tramp iron caused an average of two or three fires a month; also machinery damage was high, production kept at a minimum, and employees' safety constantly in jeopardy. Now over three pounds of tramp iron each week are cleaned from the magnets.

FLASH FIRES were eliminated by five magnetic humps located in pneumatic pipe lines between opening room and pickers and from waste hoppers.

Lubricant Splashing Stopped

case 38

ONE of New England's large wool manufacturers started using Tycol Amortac 62 oil upon experiencing the problem of oil and grease being thrown from moving parts of the production machinery. Before the change, this condition created both quality control and plant safety difficulties.

The problem was solved by application of Tide Water's Tycol Amortac 62, a non-splashing oil. In the weave room Tycol Alastac 10 has been applied to the open gears and head motor gears of Crompton & Knowles W-3 looms. These greases contain a special additive

to impart extreme cohesiveness and adhesiveness. Resistance to spattering and dripping made this oil applicable in solving quality control and safety problems.

Tycol Amortac 62 oil, a machine oil blended with a "non-drip" additive, solved the same type of problem on another oil-lubricated machine. The brush motion in wool combing, at this same New England mill, was throwing oil onto the floor and onto the stock. Relief was obtained upon application of the non-drip oil.

Beam Handling Is Easy with these Mill-Made Storage Racks

case 39

MANY different widths of looms at Dunson Mills of Pepperell Manufacturing Co., LaGrange, Ga., made it difficult to determine the amount of space required for each size and also to find the style or size warp sought when the warps were stored at random on floor level.

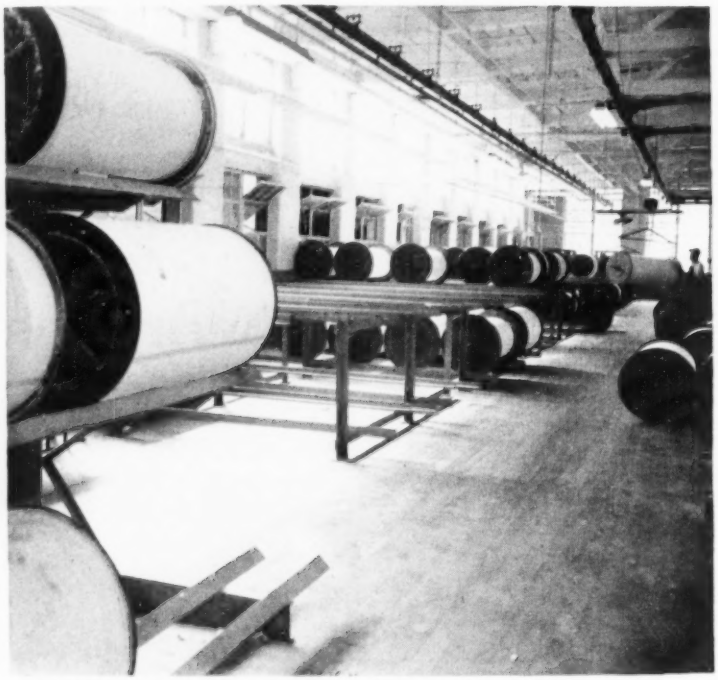
To solve the problem, storage racks were designed, built, and installed in the slasher room to accommodate the warps. Additional racks were provided in the slasher room for section beams. The warp beam racks were constructed to accommodate the beams in the least possible space while remaining easily and quickly accessible. They can handle any size beam from 40" to 82" in width and head diameters from 20" to 26".

The racks provide a shelf-type arrangement of three tiers of beam supports arranged in stair-step order (see accompanying illustrations). Now a beam can be removed from any shelf at any time without disturbing the remaining beams.

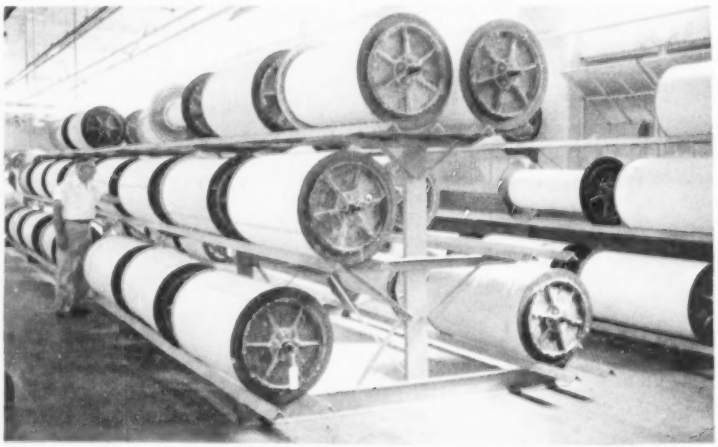
Each shelf consists of two pieces of 3" angle iron arranged parallel to form a recess for beams to rest in. Upright stands are made of 3" angle iron to support the racks (see lower photograph). The entire storage facilities were made in the mill shop, and the new arrangement is more convenient and saves time. Now one man can get any beam he wants; whereas, formerly two men had to handle beams.

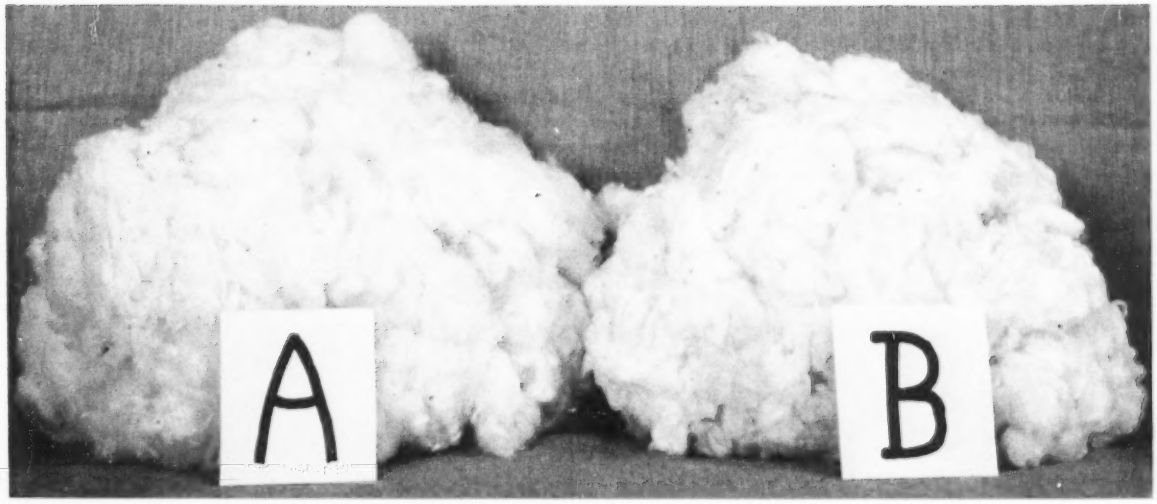
An overhead hoist on a tramrail is electrically operated and serves the beam racks to permit a one-man operation.

The new racks also help from the standpoint of safety. There is less danger of someone being injured by trying to lift a heavy beam, and there is less likelihood of a beam falling on someone. Furthermore, the beams stay in better condition, and beam handling costs are reduced.



THREE-TIERED WARP BEAM RACK can be seen in left foreground of the above photo made in Dunson Mills' slasher room; note how section beams are stored behind slashers and also the tramrail handling system. Full view of warp beam rack appears below.





BETTER OPENED COTTON (labeled A) was processed through S.R.R.L. type opener; B went through regular opening line.

Better Opening, Increased Staple Length With New Cotton Opener

case 40

ALL four opening lines at Joanna Cotton Mills Co., Joanna, S. C., are now equipped with S.R.R.L. type openers made by Cen-Tennial Cotton Gin Co., Columbus, Ga. Experience with these openers at Joanna has proved that they do not damage staple. In fact, Fibrograph measurements made before and after installation of the openers show that there has been a slight increase in staple length of stock coming from opening.

Every pound of cotton, both domestic and Egyptian, entering the mill passes through the new openers. Three lines are on shade cloth, using 1 1/32″ to 1 7/16″ staple; the fourth is a waste line.

The S.R.R.L. type openers follow the F-7 blending feeders in the opening line. Production of each opener is 1500 pounds per hour. The opened cotton goes directly to the pickers.

This Revised Doffer Wage Payment Improved Production and Morale

case 41

A CHANGE in method of paying doffer piece rates has increased production by providing a suitable wage incentive in one mill. The rates are now based partially on the hanks run and partially on the actual number of doffs made.

For several years the spinning doffers in this mill were paid on the basis of hanks run, as registered by the hank counters on the spinning frames. The rates for each type and count of yarn spun and frame speed had been based on extensive time studies and were equitable.

However, it was found that in practice, due to the failure of some individual doffers to doff a frame when it became ready toward the end of the shift, there was considerable loss in production as well as poor relations between shifts. Many doffers would allow a frame to stand, ready for doffing, and leave the actual doff to be done by the following shift.

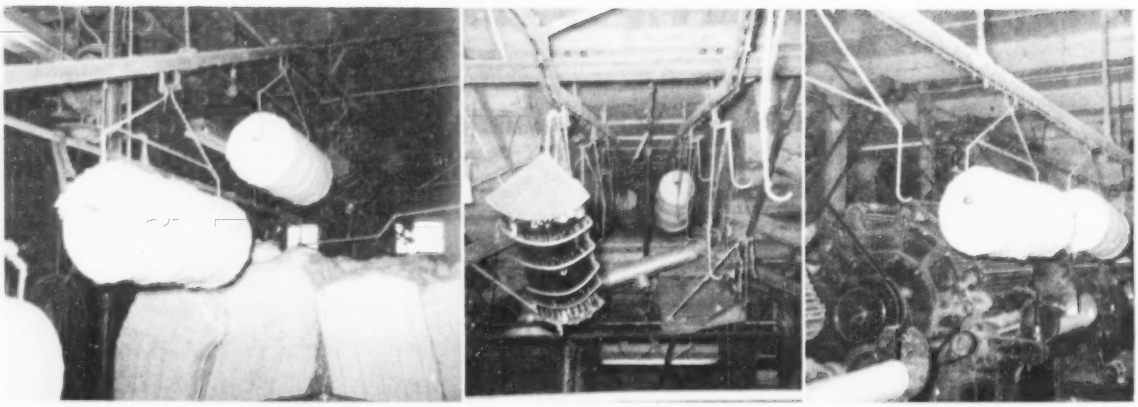
When the frame was stopped and not registering hanks, there was no loss in pay to the doffer concerned. The doffer on the following shift would find his job overloaded to begin, and this caused ill feeling as well as the loss in production. Also the spinners became disgruntled because their wages were also paid on the basis of hanks run. Although supervision made every effort to break up this practice, it was continued.

The bad practices were eliminated by basing the piece rates partially on hanks run and partially on doffs. About two-thirds of the doffer's wages now come from the hanks run; the balance comes from the number of doffs actually made. This method is an application of wage incentives.

A doffer no longer leaves a frame for the next shift to doff but

if at all possible will doff the frame himself, thus increasing his earnings. The change has increased production as well as earnings for both doffers and spinners. A noticeable improvement in morale is evident, and the relations between the doffers on different shifts have improved.

An earlier method of payment, based on the actual number of doffs made, was not restored as it had been found that this caused considerable "short" doffing. In other words, the frame would be doffed before the bobbins were completely full, which increased the actual number of doffs made. This not only caused a loss in spinning production but also penalized the spooler hands by giving them an excessive number of small bobbins to process on their machines.



ONE SHIFT OF OPENING AND PICKING ELIMINATED by installation of picker lap conveyor system. Left to right, laps leave opening and picking department; laps in transit one way, lap pins being returned in the opposite direction; and laps in the card room waiting to be placed on cards.

Lap Conveyor Saves Man-Hours

case 42

THE labor of one man was saved and operations on one shift in the opening and picking departments in one mill were suspended upon installation of a Zig-Zag conveyor supplied by Richards-Wilcox Manufacturing Co., Aurora, Ill.

Using three drive units, the Covington Mills, Covington, Ga., are able to transport picker laps easily, freely, and economically from one department to another, thus saving valuable man-hours as well as permitting an increase in production. This installation is 900 feet long, and results have been so satisfactory that the mill has ordered an additional 300 feet for other applications.

Formerly the pickers were under the card room in a basement, and laps were conveyed by a small elevator. In this basement there was room for only two pickers which were operated three shifts. This set-up called for a man in the picker room and one in the opening room for each shift.

The conveyor was installed to run from the opening room to the card room, over the top of the weave room, a distance of about 200 feet. With this system to convey laps, the pickers were placed in the opening room, and another picker was added in the additional area made available by the change. This new arrangement eliminated the third shift in the opening and picking departments, and the mill was able to run both opening and picking with one man where two were formerly required.

Maintenance and Operating Costs Lower with Gas-Fired Boilers

case 43

AFTER over two years of operation of gas combustion equipment, management of an Alabama mill is convinced of the benefits of using natural gas in place of coal in three 300 hp B&W boilers. The change to gas has also increased cleanliness, promoted good housekeeping, and lowered maintenance and operating costs. Webster Engineering Company's combustion equipment is used in this instance.

With natural gas being burned on an interruptable basis, the cost and inconvenience of handling and storing approximately 6,000 tons of coal per year no longer confront this mill. Less than 300

tons of coal per year as standby fuel are now required, according to a mill spokesman.

The equipment consists of Webster Type RD-30W burners with Series 14 pneumatic controls, air compressor for operating controls and dampers, electronic combustion safeguard, and accessories. One burner is fired through the front wall of each boiler.

Approximately 8" of cinders are placed over the stoker hearth and retort, leaving the existing underfeed stoker, hopper, and conveyor for standby coal firing. While a minimum of four hours notice is given before an interruption of gas, the boilers may be easily placed on coal firing in approximately two hours. After gas service is resumed, the boilers are again converted to gas-firing in approximately two hours.

Stretch Shrinker Blanket Life

case 44

BLANKETS on compressive shrinking machines are expected to wear appreciably longer at White Brothers, Inc., of Winchendon Springs, Mass., as a result of a supplemental drying technique worked out by superintendent of finishing, Clyde Hannant.

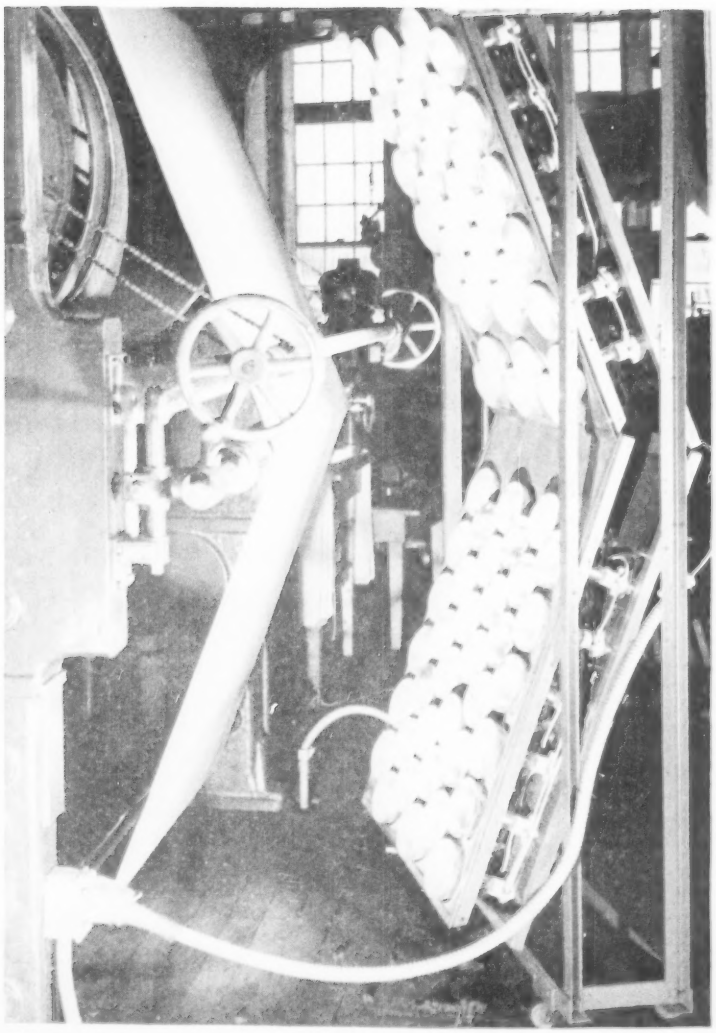
Noticing that the blanket was only partially dry after passing over the 36-inch drying cylinder of his compressive shrinking range, Mr. Hannant observed that here may be the underlying cause of blanket wear. Being subjected to the duress of heat and moisture for hours on end without respite, the thick woolen felt blanket could deteriorate a given amount over a period of time. But, if the blanket ran completely dry through a portion of its circuit in the range, its life could be extended over a greater period of time, he noted.

With these considerations in mind, the drying capacity of the range was boosted with a battery of infra-red lamps. After making allowances for the amount of moisture remaining in the blanket as it passed over the drying cylinder, its lineal speed, and its direction of travel, Mr. Hannant decided that seventy-two 250-watt infra-red lamps would be needed to remove the excess moisture from the blanket.

The lamps were mounted in two banks of 36 each, V-shaped so that all the lamps would be equidistant from the blanket as it passed over a guide roll at the drying end of the machine. The heating area covers the full exposed surface of the blanket at the drying end.

An angle-iron frame houses the lamps (see accompanying illustration). The structure stands on casters which allow it to be moved towards the blanket or away as well as sideways, depending on operating conditions. Power is delivered through armored cable furnished with a plug that engages with a receptacle on the compressive shrinking range.

From conversations with finishers from other mills, Mr. Hannant has learned that the blankets on his ranges are already lasting beyond the average wear-out point.



BANK OF LAMPS is portable so that it can be moved to provide maximum benefit in accordance with the various operating conditions.

Tester Checks Yarn Evenness Quickly

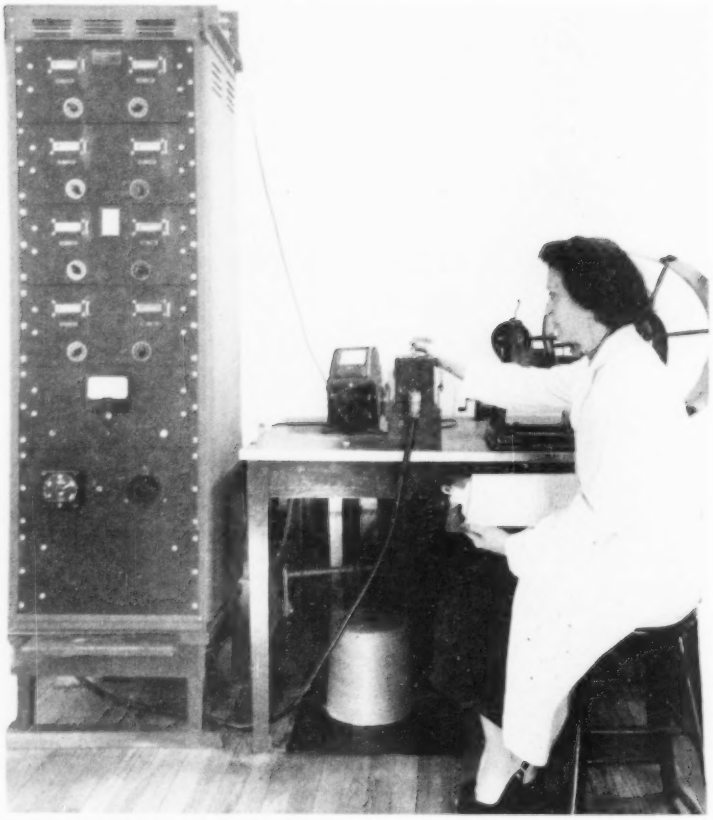
case 45

THE Revonah Spinning Mills, Hanover, Pa., a spinner of jute carpet yarns, has found that the SERC yarn analyzer has proved invaluable for providing an accurate and rapid means of determining yarn evenness. The analyzer has also proved an excellent tool for research and development work, such as evaluation of yarns spun from experimental mixes of fibers.

This mill instituted electronic evenness testing as a routine part of its quality control program in 1948. The Standard Electronics Research Corporation yarn analyzer, Model EMB-1, was first purchased in September 1948. The model now in use is the large EMC-2-8, an eight-counter instrument.

The SERC instrument is a non-contact device and is used in quality control testing of jute yarns. This instrument is designed to give reliable results even though variations of moisture content in the yarn may be present, thereby removing any necessity for controlled conditioning of the specimens.

In operation, for control testing, the yarn is taken directly from precise wound tubes, picked at random from the production winders in the mill. A permanent record of the test sample results is made on a Brush tape recorder, and the tape is retained with the test form.



NO NEED TO CONDITION SAMPLE on this electronic evenness tester. Powered drum yarn collector was built by mill.

What Powdered Size Did for Weaving of Synthetics

case 46

WARP size check-up tests, recently conducted in a prominent North Carolina mill, proved the value of a powdered sizing agent in the weaving of synthetics.

The shedding problem had become acute and weaving properties were unsatisfactory in this mill's production of gabardine from 50% viscose and 50% acetate spun yarn.

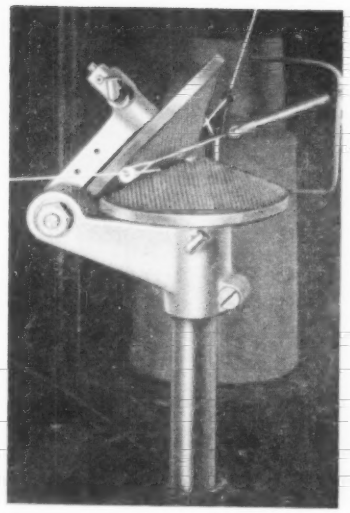
Extensive tests made by the size specialists of E. F. Houghton & Co. resulted in a new sizing formula which overcame the previous production difficulties. Shedding was greatly reduced and general weaving efficiency of the yarn was improved with a size formula which included 10 lb of powdered Houghto-Size 475 and 150 lb of thin boiling starch to make 135 gallons of finished size.

In addition to improving weavability, the new formula is easier to prepare.

Another southern mill was having trouble producing high-sheen heavy gabardine from single count number 20 spun yarn with a content of 50% viscose, 35% acetate, and 15% nylon. Production problems included difficulty with lint balls, excessive shedding at the slasher, and brittleness of the yarn.

When a powdered sizing agent was introduced into the formula, brittleness and lint balls were eliminated. Shedding at the slasher was reduced by 25% as determined by weight tests.

The formula used to make 200 gallons of finished size included 300 lb gum, 6 lb of Houghto-Size 475 and 6 lb of Houghto-Wax.



Rubber Furnisher Cuts Seconds in Knitting Mill

case 47

PRINCETON Hosiery Mills, Inc., Princeton, Kentucky, have applied the rubber furnishing device to all their Scott & Williams Komet Links & Links machines.

—According to mill management, the use of the attachment has greatly reduced the percentage of irregulars and seconds in knitting and improved the uniformity of elastic tops in appearance as well as stretch, which adds to the quality of the finished product.

The device, manufactured by Scott & Williams, Inc., feeds the elastic yarn to the knitting machine under uniform tension and in direct proportion to the speed.

Beneficial to all grades of hosiery, the rubber furnisher is extremely important when using expensive synthetic yarns and is said to pay for itself in a very few months.

Automatic Controls Double Production in Tentering and Heat-Setting Nylon Tricot

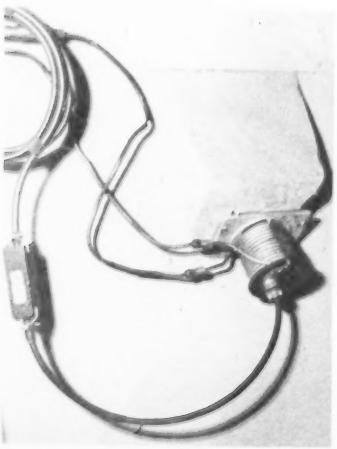
case 48

TENTERING and heat setting nylon tricot fabrics are combined in one operation at Julius Kayser & Co., Ltd., Sherbrooke, Quebec. A Radiamatic unit and Electronik controller, made by the Minneapolis-Honeywell Regulator Company, enables the processing machine to serve as a combination tenter and heat-setting machine. This combination has more than doubled production and has immeasurably improved final quality at the Kayser mill.

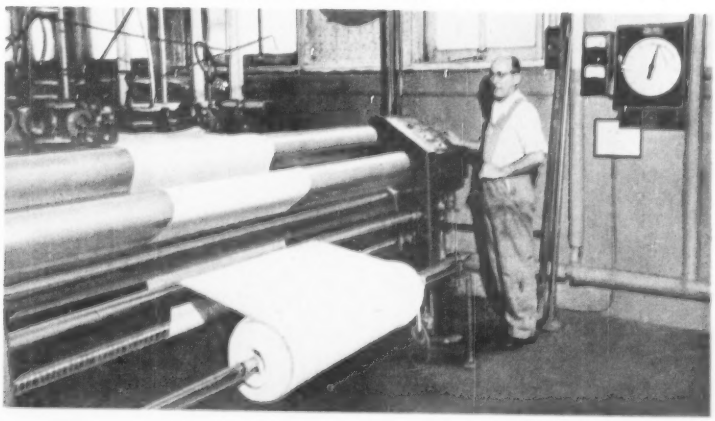
Since temperature is a critical factor in heat setting, it was necessary to maintain the fabric temperature within narrow limits. Consequently a Brown low range Radiamatic sensing unit was installed to sense the heat. A circular chart Electronik recorder equipped with electric control and integral electronic relay operates in conjunction with the Radiamatic sensing element. The control system was installed to accurately regulate the power to the radiant heating elements.

The chart and scale are evenly graduated from 0 to 100, and the instrument is used as a deviation recorder-controller. The best processing temperature for each type of fabric is determined by trial, and the corresponding reading on the Electronik instrument is noted. Thus, when the same type of fabric is again processed, it is necessary only to set the control index of the

RADIAMATIC UNIT SENSES fabric temperature and transmits readings to controller.

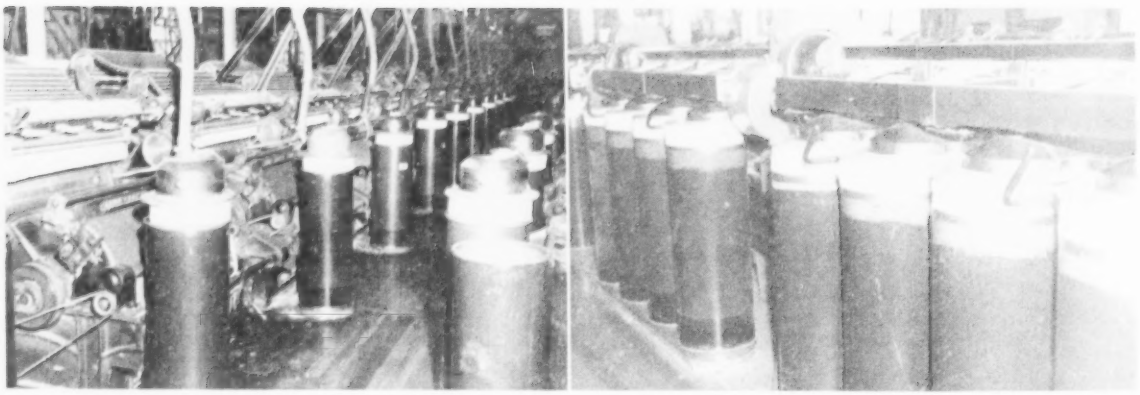


ELECTRONIC CONTROLLER can be seen on wall at extreme right.



instrument at the value that corresponds with the determined processing temperature.

An Electr-O-Pulse relay proportions the power to the heating units during the down time so that the temperature in the radiation box remains at the proper running value.



LABOR REQUIREMENTS CUT ONE THIRD on cards equipped with 14" coiler conversion (left). Right, 14" coiler conversion on drawing cuts labor requirements 25%.

Coiler Conversions Reduce Job Loads in Two Mills

case 49

A CARD COILER conversion in a yarn mill in Alabama has enabled the mill to rearrange its job loads and save one man's labor per shift as a direct result of the 14" conversion. The conversions were supplied by Southern States Equipment Corp., Hampton, Ga. The job consisted of 85 cards on fairly high production which required three card tenders. Twelve-inch cans were formerly doffed every 40 minutes.

By changing to 14" cans, this mill was able to increase doffing intervals to one hour and ten minutes, reducing the job load considerably. Consequently, the 85 converted cards became a two-man job, freeing one man for other duties. Quality was improved by having fewer piecings at drawing.

DRAWING frame and lap machine tending have been improved and simplified in a large Georgia mill upon installation of Southern States 14" coiler conversions on existing 12" Saco-Lowell lap back drawing frames.

In this instance, card sliver was run into lap machines for lap back drawing, and from drawing again into lap machines for further processing. Prior to installation of the conversions, four tenders per shift were needed.

The installation of 14" cans increased the doffing interval and extended a proportionate time saving at the lap machines. The job load was alleviated sufficiently to relieve one man on a job previously requiring four tenders per shift. In this instance the mill was able to write off all conversion costs in less than one year.

Resilient Wool is Fiber Needed by This Mill

case 50

THE Schlegel Manufacturing Co., Rochester, N. Y., tested many fibers before concluding that resilient wool is the fiber to use in their pile weatherstripping. All available yarns and monofilaments were tested, individually and in combinations, before deciding upon the most suitable.

The resiliency of the pile was determined by vertically pounding a section of the pile lining 36,000 times dry and another 36,000 times wet. The force of each stroke was sufficient to compress the pile to the limit. The resiliency was thus defined, and the tests were changed so the wool pile was placed in approximate conditions of actual use.

In this test series, samples were rubbed back and forth on a flat surface under pressure, 10,000 times wet; 10,000 times dry. Here

the wool proved better for this mill's application. Wool pile proved to be the final answer, and the value of the tests has been illustrated in the results of a Chicago testing laboratory's report. This laboratory found that the wool pile, when used in a window raised and lowered more than 250,000 times, showed no evidence of the wool pile being reduced in effectiveness.

Size Cooking Equipment Reduced

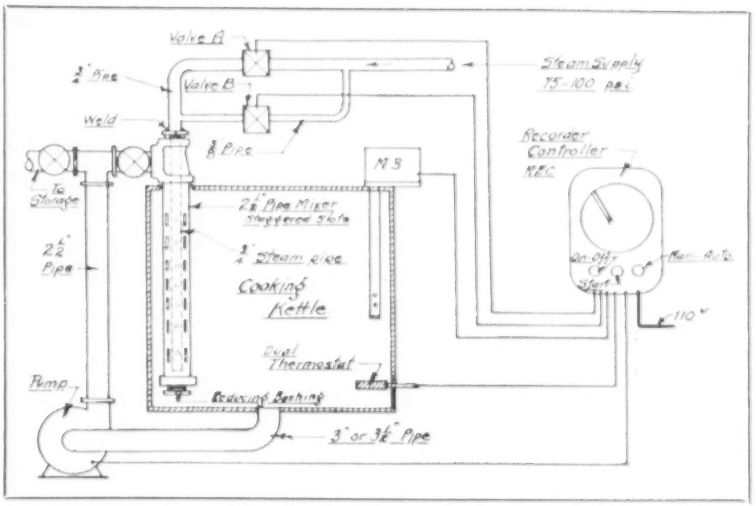
case 51

A LARGE mill in South Carolina has been able to reduce the number of cooking kettles from 13 to 4 by installing the Norcross Sizeometers. This mill reports that the size remains more uniform in the storage kettles and size boxes than regularly cooked size.

The following advantages were reported for the equipment: (1) Saves labor; (2) cuts operating costs; (3) reduces waste; (4) simplifies job; (5) improves quality; (6) increases production.

The Sizeometer cooks the size under pressure and mechanically breaks it down as it is drawn from the bottom of the kettle by a large centrifugal pump and returned to the kettle through an internal cooker. The Norcross Viscometer is used to record and control the viscosity of the size. The Sizeometer is automatic and produces a smooth, uniform size in less than ½ the normal cooking time

The Anniston Manufacturing Company, Anniston, Ala., discontinued the use of two cooking kettles by installing the Sizeometer on a third kettle. This mill uses thick boiling starch and makes a saving on material in addition to the other advantages.



New Boiler Saves 40% in Fuel Costs

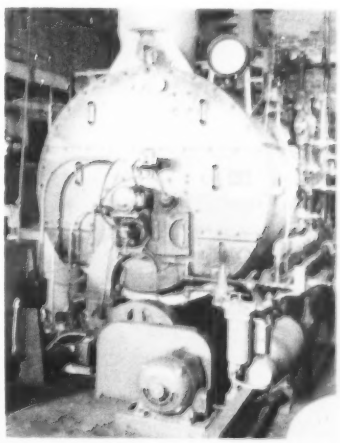
case 52

HERBERT Hosiery Mill, Norristown, Pa., installed a 125 hp Cleaver-Brooks steam boiler and effected a saving of 40% in fuel costs alone. This manufacturer of hosiery for men, women, and children kept accurate records to permit analysis and comparison of boiler operating costs.

Over a 293-day operating period, the boiler consumed 42,800 gallons of No. 5 oil at a cost of 8.2¢ per gallon. A 10,000-gallon underground fuel storage tank enabled the mill to take advantage of "tank car load" fuel prices. The steam cost over this period represented a saving of 40% in fuel costs alone.

Steam costs for an average ten-hour day amounted to $11.93 as compared with average daily operating costs of $19.37 with the old coal-fired boilers. The resultant saving on operating costs amounted to $7.44 each day. At this rate, the boiler will pay for itself within three years of starting date, and savings will subsequently be reflected as profit.

Beside the exceptional fuel saving, this mill now has a clean boiler room devoid of smoke and fly ash, and there is no further need for coal ash removal. Steam pressure remains constant, and it is no longer necessary for the firemen to come in two hours prior to the start of a shift to fire the equipment. From a cold start, the new boiler reaches required operating pressure in less than 30 minutes.



Redyes Cut 80% As Cell Measures Dye Liquor Flow

case 53

SENSITIVE Foxboro d/p cells, installed at Dundee Mills, Inc., Griffin, Ga., have helped to reduce redyes 80% by measuring the flow of dye liquor on Gaston County beam dyeing machines. The results, typical of many such installations, include: fewer seconds in finished product; more uniform color on each dye lot; better production in winding department, which handles less redyed yarn; a 25% increase in production per man-hour, and 4% saving in dye cost, partially attributable to fewer redyes.

Installation required no changes in piping, no restriction in the line, or modification of the dyeing machines.

The cell measures the differential pressure at taps in a 90° pipe elbow and transmits this measurement to a Foxboro flow recorder on the operating floor. With flow to either kier of the two-kier machines accurately and continuously charted, the flow of dye liquor can be metered to the weight of yarn in accordance with the dyestuff manufacturer's recommendations.

25% MORE PRODUCTION PER MAN-HOUR was permitted by instrument installation and differential pressure cell (on pipe elbow at lower left).

Regardless of flow direction, the operator is guided by a precise record of flow rate. By watching the chart, he can spot troublesome beams before they are dyed. The chart also warns the operator of variations in beam density so that the flow rate can be corrected. This reduces the danger of blowing beams and damaging the yarn due to excess flow of dye liquor in the inside-out direction.

The d/p cell has small displacement and traps virtually no dye liquor. All parts exposed to the dye liquor are made of stainless steel, preventing corrosion, and eliminating the need for complicated seals.

Shutdowns Prevented, Production More Flexible with Loom V-belt Drives

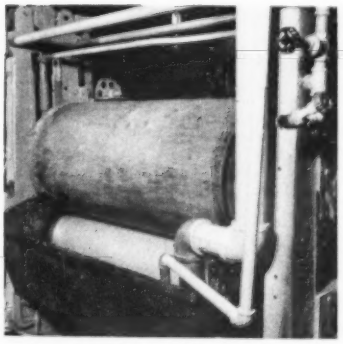
case 54

LOOM flexibility has been improved by application of Gates V-belt drives at Thomas Taylor & Sons, Inc., Hudson, Mass. This firm manufactures elastic tapes and cords, and uses multiple shuttle narrow fabric looms.

A variable pitch motor pulley allows the speed of the loom to be changed between 68 and 86 rpm. Instead of each loom being restricted to the production of certain kinds of tapes, the loom may now be assigned to weave any tape within the width range of the machine by simply adjusting the speed of the loom to suit the requirements of the tape being made.

Formerly there were as many as 30 looms on one line. Consequently, any belt trouble meant the shutdown of the entire group of looms and a loss of production ensued.

In an effort to modernize these machines and speed up production, the plant superintendent sought the counsel of a Gates engineer. Together they worked out the loom drive utilizing Vulco Rope drives which ended all former troubles and maintenance problems as well as permitting a completely new and wider latitude of production.



USED AGAIN AND AGAIN are the fittings on the maple roll, when the roll wears out.

Re-Use of Roll Fittings Proves Economy Measure for Finisher

case 55

ROCK HILL Printing & Finishing Company, Rock Hill, S. C., has reported a saving of $5,000 per year in the starching operation by using fittings of worn-out rock maple rolls as many as 10 times, instead of buying entirely new rolls. Made by Rodney Hunt, the maple rolls are equipped with a patented Anchor Seal and White Seal construction.

The seals and all metal parts of the rolls are anchored to the log by a 150-ton press assembly which is said to give the shaft a setting of strength necessary.

No Blow-Down Now

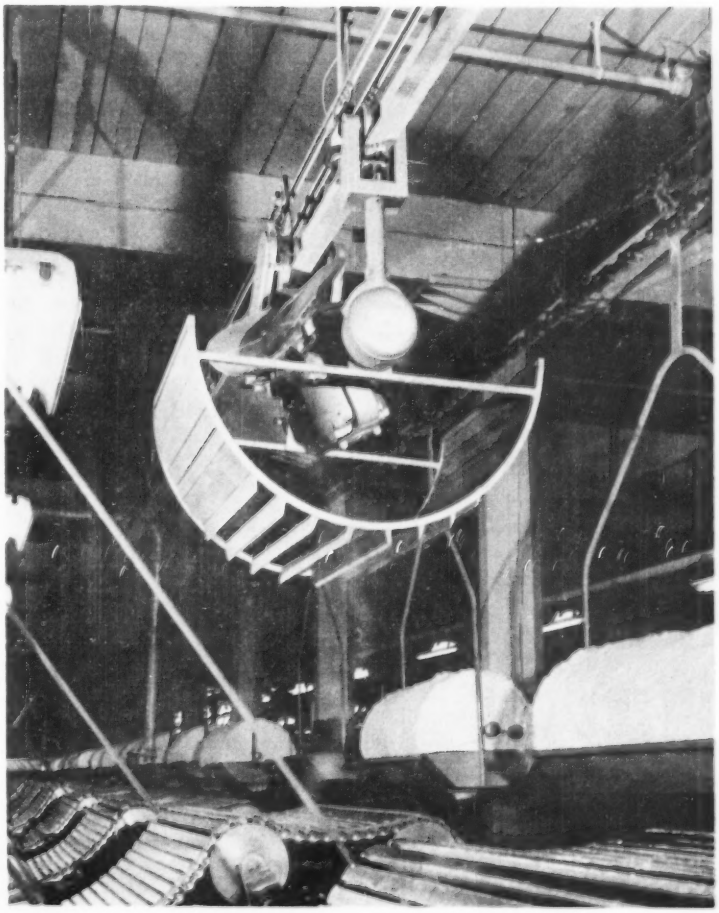
case 56

A LARGE North Carolina cotton mill was able to completely eliminate manual blow-down of ceilings in several departments by installation of Allred cleaners. These cleaners, manufactured by The Bahnson Company of Winston-Salem, N. C., are flexible in operation and can be adjusted to provide automatically any type of ceiling, wall, or machine cleaning necessary.

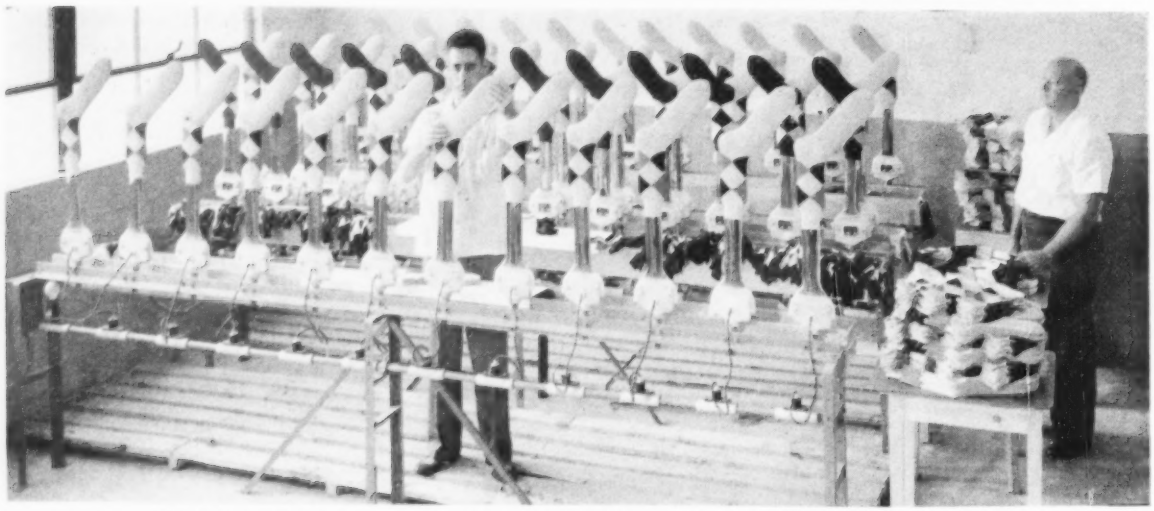
In the card rooms, the Allred cleaners keep the ceilings free of lint and also blow downward over the backs of the cards. A protective shield under the fan effectively prevents any air blast which would disturb the web. Since installation of the cleaners several months ago, a manual ceiling blow-down has not been required in the card room, and it is anticipated that none will be required in the future.

Similar results were obtained in the roving room where the cleaners keep the ceiling, pipes, lights, and other overhead surfaces free of lint. In the circular knitting room, cleaners keep stop motions, ceiling, and parts of machinery completely clean.

The usefulness of the Allred cleaner is greatly enhanced by a simple method of automatic rotation which allows the fan to blow in one direction for one circuit of the overhead track, then turn to clean all other areas during successive circuits. The fan shield is effective in protecting critical areas of certain machines while allowing automatic cleaning of other parts of the machines.



LINT-FREE CEILINGS are visible in this photo of the Allred cleaner. Note protective shield under fan.



BOARDING ROOM employees like these electric forms, especially in the summertime.

Electrically Heated Forms Low on Maintenance Cost, Provide Comfortable Conditions

case 57

FAIRVIEW Hosiery Mills, Inc., of Hickory, North Carolina, are particularly well pleased with the "Philadelphia" electrically heated equipment now being used. Fairview's general manager, Paul Shipman, has stated that operation of these electrically heated boarding forms is proving both economical and efficient. Not only have operating costs been lowered, but there has been no need for maintenance whatsoever.

Fairview has found that the electric forms have improved working conditions to a great extent in the mill. Said Mr. Shipman: "The installation of 'Philadelphia's' electrically heated drying forms eliminates the need for the feed and return pipes of a steam system which act as radiators and cause discomfort to operators in hot weather. By assuring our employees more comfortable working conditions, we have been able to stabilize our labor supply and have also found that our employees show a greater interest in their work."

In addition to economical operation and improved working conditions, Fairview has found that the consistently high temperatures obtainable through the use of electrically heated forms has proved a major production advantage. Commenting on this fundamental factor in profitable mill operation, Mr. Shipman declared: "Since the heat limit obtainable with electric forms is only governed by the degree of temperature which will not scorch a stocking, we have consistently experienced faster drying and consequently increased production."

Another case in point is the experience of Martha Mills, Inc., of Asheboro, North Carolina. Said Leon J. Brandt, Jr., of Martha Mills: "We have been using 'Philadelphia' electrically heated drying forms since 1949, and during this time our maintenance costs have been 'zero'. Based upon our power bills and shipments, boarding costs us $.006 per dozen; there have been no maintenance costs. Any mill running ingrain work would benefit by the use of electrically heated forms."

Aluminum Lug Supports Save Picker Sticks, Lug Straps, and Labor

case 58

ONE large mill in the South has reported that the use of aluminum alloy lug supports, made by West Side Foundry Company, Rome, Ga., permitted a reduction in loss of picker sticks and lug straps sufficient to pay for the supports. Furthermore, less labor was required to install them.

The company reported the sup-

ports could be easily adjusted up and down to regulate the power on the picker stick. The management at this mill was impressed with the savings and advantages of the supports and equipped all looms in the weave shed with them.

The advantages enumerated by personnel at the mill are:

(1) Low first cost.
(2) Easy to install.
(3) Easy on lug straps.
(4) Stay put when set.
(5) Light in weight.
(6) Easy to store.
(7) Long life.
(8) Easy on picker sticks.

Automatic Picker Lubrication Cuts Lubricant Cost 50%. Reduces Down Time

case 59

AN ALABAMA cotton mill improved picker operation and cut picker operating costs by installing Lincoln CentrOiler lubricant application systems on two Saco-Lowell two-beater pickers. The system on each picker includes two manually controlled, manually timed CentrOiler pumping units, and two circuits of 45 SL-4 injectors, serving a total of 90 bearing on each machine.

Lubricant consumption was cut 50%. The system paid for itself in approximately 90 days, and power consumed is reduced due to elimination of frictional drag. Parts replacements were sharply curtailed upon application of the system.

When lubricated by hand methods, only once every 24 hours, each machine was down two hours, and there was no assurance that every bearing was located, contacted, and received the right amount of lubricant. Also, there was the constant danger of lubricant dripping from oil holes onto goods in process, and oil on floors constituted both a fire and accident hazard. The automatic system eliminated all of these problems immediately. With the new system, every bearing on these machines is lubricated 12 times every 24 hours while machines are in operation.

Dual Stoker Controls Save $1175 Annually in Steam Plant Operation

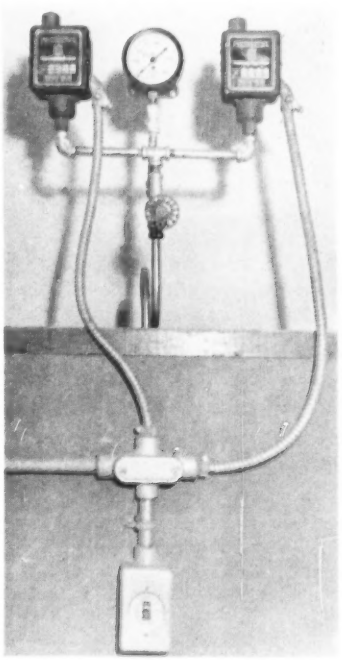
case 60

FUEL savings aggregating slightly more than 10% have been made in the steam plant at one full-fashioned hosiery mill. The saving was effected by Pressuretrols for controlling the Frederick stokers that feed coal into two 125 hp Economic boilers, which are manufactured by Erie City Iron Works. The rearrangement and new design of the control equipment also requires less attention from the firemen, who are thereby better enabled to concentrate on other duties.

Formerly the steam plant was not efficient because the steam pressure was not lowered from 115 psi required during the heavy load on first shift, to 40 psi which is sufficient steam pressure for the second and third shifts and also from Saturday morning until the following Monday at 6:00 A. M. This condition existed because the steam requirements varied daily, and a program control device could not be applied.

Previous types of controllers had to be set above the water line in steam boilers. Then when it was desired to change the pressure setting, a 12-foot ladder had to be used to climb up and adjust the pressure screw with a screwdriver. However, if the setting were changed frequently, the female threads on the control device became worn and it was necessary to replace the entire controller.

In a period of two years five controllers were replaced because they became defective due to constant adjustments; then the last controllers were set at 115 psi and the adjusting was stopped. The result was that an excessive amount of coal was burned that cost



$10.69 per ton delivered. That represented very poor economy in steam plant operation.

The idea of using two controls

for each stoker was conceived, so Pressuretrols were obtained from the Minneapolis-Honeywell Regulator Company. They were mounted above the water line on the boilers (see accompanying illustration). The right-hand Type L404A Pressuretrol is set at 115 psi, while the left-hand Pressuretrol is set at 40 psi. The two instruments are interconnected in the stoker control circuit through a three-way switch, so that either the high-pressure or low-pressure Pressuretrol has control of the stoker operation.

In practical operation during peak loads, the switch is thrown "Up" to the 115 psi setting; when dyeing and preboarding operations are finished for the day, the fireman throws the three-way switch to the "Down" position which drops the boilers to 40 psi. The system is foolproof and requires no extra labor.

The extra investment for each boiler amounts to approximately $25 for all materials. The actual savings in our case amounts to approximately $1175.90 or more annually.

Fork Truck Triples Usable Storage Space

case 61

A LARGE North Carolina denim mill tripled the usable storage space in the warehouse by using Elwell-Parker fork trucks. Previously drums and barrels were stored in the warehouse by hand in one tier (or two tiers of much lighter material). Now the use of the fork truck has permitted three and four tiers of the same material.

Tallow in barrels and dyes in drums, as well as zinc dust in drums, are transported and stacked three high and four high on pallets, four barrels or drums (each weighing over 500 lb) on each pallet.

The fork truck is also used to handle heavy machinery and for miscellaneous jobs around the plant.

An electric-powered industrial tractor and a fleet of nine standard trailers have helped in fast and efficient handling of about 70,000 bales of cotton and 10,000 bales of cotton waste per year.

Continuous Roll Feeds Permit Finisher to Save Labor, Time, Cloth

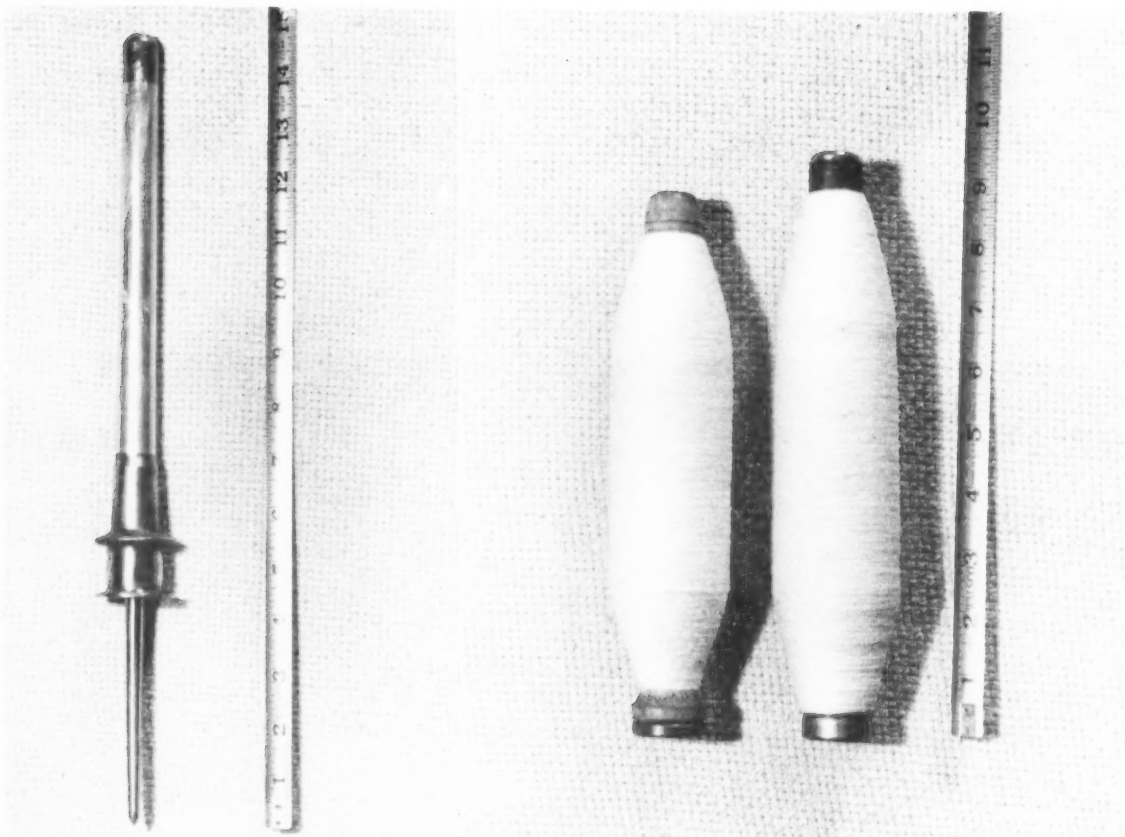
case 62

SAVINGS in labor, time, and cloth are being realized at Paramount Printing and Finishing Co., Pawtucket, R. I., as a result of the use of twelve Mount Hope Continuous Roll Feeds (automatic scrays which permit full-speed production on all roll-fed machines while new rolls are sewed on) ahead of printing machines, calenders, continuous dyeing range, and tenter frames.

The calenders are now producing 40 - 45 thousand yards per eight-hour shift which is very nearly double the production previously obtainable. The open width tension device on the continuous roll feed unit makes it possible for the fabric to be delivered to the calenders under constant, controlled tension at all times, and precision guiders keep the cloth in alignment as it enters the calender rolls.

Production of the printing machines, which are operating at an average of approximately 100 ypm, has been boosted nearly 5,000 yards per 24-hour day per machine by utilizing these automatic scrays ahead of them. Another advantage is that back tenders can change rolls more easily and thus can spend more time in making a correct sewing which, of course, results in production of fewer seconds. Here again the constant tension and perfect alignment of the cloth entering the printing machine continuously so that its operation is uninterrupted reduces seconds even more.

Manufactured by Mount Hope Machinery Co., Taunton, Mass., the feed units are available in a variety of capacities, the average size holding approximately 400 yards of 3-yard goods. Scrays are made of stainless steel with adjustable front.



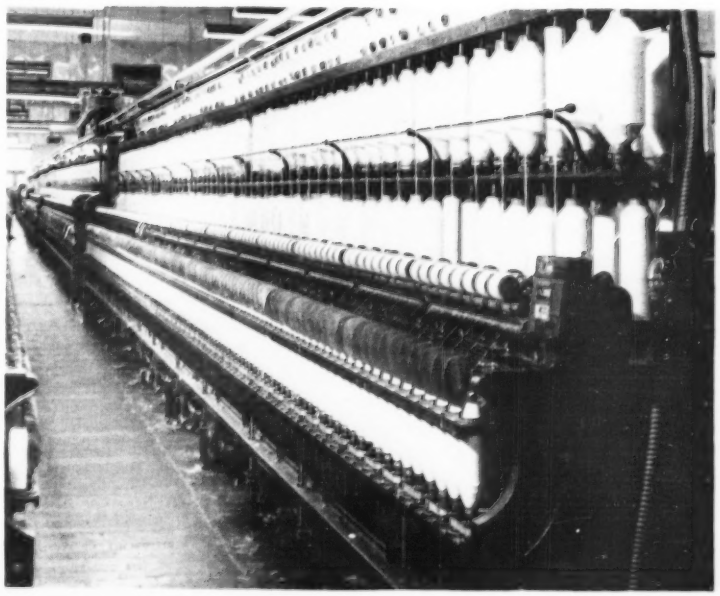
ROLLER BEARING SPINDLE (left) requires lubrication only once a year. Paper bobbin (right) holds 25 per cent more yarn than the conventional bobbin to its left which was previously used.

25% Larger Package Credited to New Spindles and Carriers

case 63

WENNONAH Cotton Mills Co., Lexington, N. C., has increased package size 25 per cent on its spinning frames by replacing conventional spindles and bobbins with No. 1106 Marquette roller bearing spindles and paper bobbins. The first installation was made in February, 1952, and about 9,000 spindles have been converted since.

Package size has been increased because of the longer bobbin, on 16s, 20s, and 31s yarn. Ring sizes are the same as before conversion —2 inches and 2¼ inches. All installations of the Marquette spindles have been on Whitin frames.



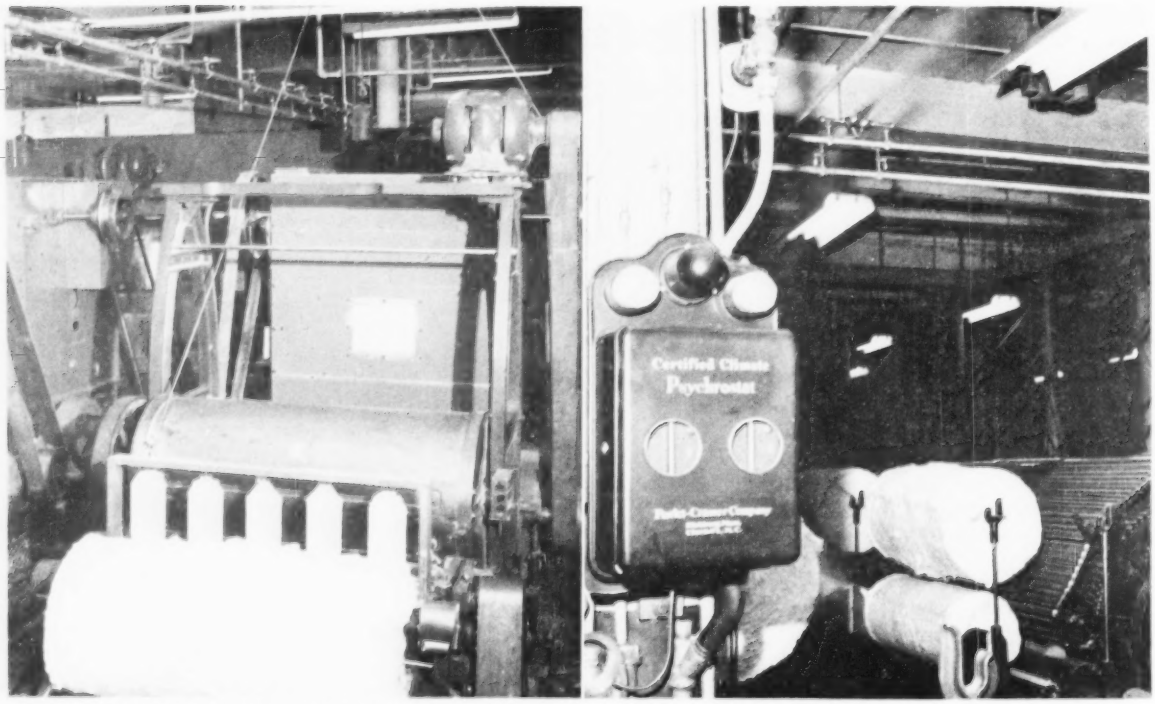
WENNONAH Cotton Mills Co. now has about 9,000 Marquette roller bearing spindles.

3-inch and 3½-inch gauge, with either Casablancas long draft or Roberts cradles. Spindle speed is 9,100 rpm.

According to Harry J. Washam, Wennonah's overseer of spinning, the Marquette spindles require considerably less lubrication than the ones they replaced—once a year as compared to once a week. The new spindles have less tendency to become crooked or out of balance, and when properly plumbed will remain so longer than conventional spindles.

Time studies have shown no appreciable difference in the time required to doff paper bobbins. However, the larger package size permits doffers' machine assignments to be increased in proportion to the increase in package size. There has been no appreciable difference in ends down.

Combination wind is used exclusively, to take advantage of the larger package size.



PICKER LAP EVENNESS HAS IMPROVED 5% (left). Card sliver waste (right) was formerly .69% but has been reduced to .20% upon installation of Gradumatic humidification.

Humidifiers in Picker Room and Card Rooms Cut Waste and Improve Evenness

case 64

SEVERAL months ago the Parks-Cramer Company installed a Gradumatic humidifying system in the picker room and card rooms at Consolidated Textile Company, Inc., Lynchburg, Va. This system has eliminated static, and there has been a reduction in the percentage of card sliver waste from .69% (before the installation) to .20% (after the installation). This has resulted in a considerable saving because approximately 225,000 pounds of cotton in process on a weekly basis makes a lot of waste possible.

Accurately controlled humidity aids in maintaining evenness of the sliver and uniform break through the card rooms. There is less fly in the air, and the department is cleaner and more pleasant.

The picker room is controlled at 55% relative humidity which aids in consistently making even laps. Based on six months before and after humidification of the picker room, evenness of the laps has been increased about 5%. Humidification has also contributed toward a reduction of about 33% in set-back laps.

The system was chosen because

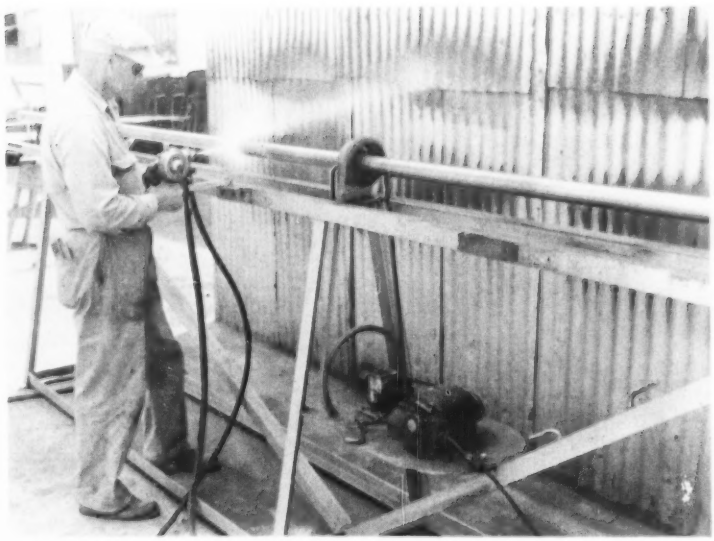
of its ability to accurately maintain humidity through a new principle in direct atomizer systems. This system continuously delivers a fine spray in the correct amount to maintain a constant humidity. The wide range of this atomizer (2 pounds to 17 pounds evaporation per hour) makes the system adaptable to any department in the mill.

Metallizing Cuts Cost of Shaft Repair in Half

case 65

KNITTING machine rocker shafts at Celanese Corporation of America, Hopewell, Va., were formerly brazed to repair worn areas. This plant started metallizing the shafts and cut the time and cost of materials for repair in half. A new rocker shaft costs about $80, but none has been purchased since the company started using metallizing equipment.

The rocker shafts are 2″ in diameter by 15′ in length. The shaft is made of cold-rolled steel, and moves back and forth in five cast iron bearings, each approximately 3″ in length. These shafts usually wear on all five bearing areas and must be repaired or replaced. The shaft ends can be placed in opposite positions once to change points of the bearing wear on the shaft.



In making the repair, each of the worn areas is turned down $\frac{1}{8}$″, rough threaded with a Rex AAA carbide tool, and metallized with Sprasteel 25, using $\frac{1}{8}$″ wire in a Metco 2E gun. Following the metallizing operation, the areas are finish-machined to the original 2″ diameter.

Weighted Averages of Loom Stops Predetermine Weaver's Rate and Costs

case 66

A MILL in North Carolina has found that the use of weighted averages for loom stop frequencies has greatly reduced the time required to determine the weavers' piece rates and the "Standard Weaving Cost" when new styles are introduced into the mill.

Probably the most important items in the determination of a weaver's piece rate, and the labor cost of weaving, are the loom stop frequencies to be used as standard. When sufficient time studies have been made on the job, equitable time values for each type of loom stop can readily be made. However, the determination of normal frequencies for loom stops requires extensive studies on all shifts and under all operating conditions. Also periodic checks should be made, after the standards are established, to determine that the actual loom stop frequencies fall within the allowable deviations.

When new styles or constructions are put in the weave room, it is important that the weaver's piece rate and the standard cost be computed as soon as possible. This will avoid the necessity of having to pay the weaver on an hourly rate or on average hourly earnings. Also, even before starting to weave, it is important that labor costs be estimated as closely as possible to what they will be in practice.

When sufficient data on loom stop frequencies, on the particular type of weave, fabric, and warp yarn sizes have been accumulated, it is a simple matter to establish standard warp stop frequencies to use as standard for similar constructions. These will be based on

the number of ends in the warp. The frequencies are based on the weighted average stops per 100,000 picks as have been determined through actual loom stop studies.

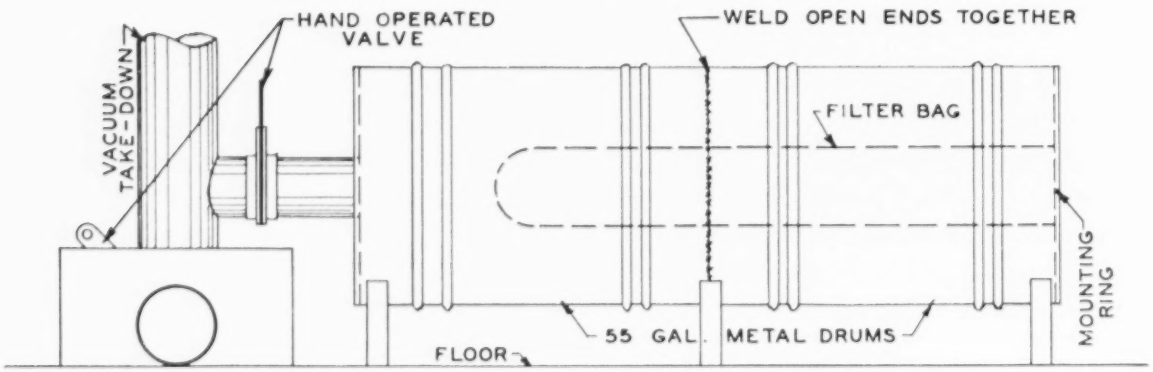
A convenient unit of measure of loom stop frequencies can be the stops per 100,000 picks. The weighted average stops per 100,000 picks can be readily obtained as follows:

Divide the total actual stops per 100,000 picks by the number of 1,000 ends in the warp. This will give the actual stops per 100,000 picks per 1,000 warp ends. This figure multiplied by the number of 100,000 picks studied will give the stops per 1,000 ends.

The weighted average stops per 100,000 picks to be used as standard will be determined as follows:

Take the total of the stops per 1,000 ends from all loom stop studies and divide by the total 100,000 picks studied. This will give the weighted average stops per 1,000 ends of warp. This figure multiplied by the number of 1,000 ends of warp in the new style will give the standard stops per 100,000 picks to be used.

This method will permit loom stop frequencies, and thus the weaver's piece rate and the standard cost, to be determined for any new style before it is put into production. It will be found that the weaver's piece rate and the standard cost, so established, will always be in line with similar styles. Routine check studies will serve to maintain these standards and will quickly point out any wide deviation from normal.



TWO 55-GALLON METAL DRUMS were used to make this filter bag cleaner at Pepperton Cotton Mills.

This Filter Bag Cleaner Costs Practically Nothing

case 67

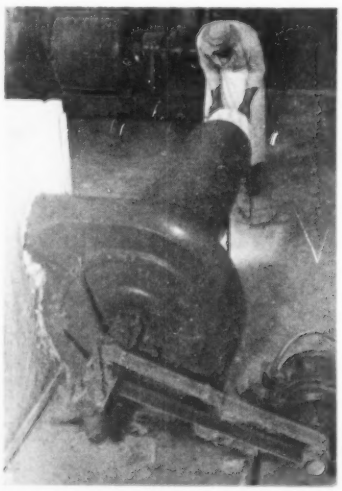
IF YOU have a vacuum card stripping system in your mill, you can have a filter bag cleaner like the one improvised by personnel at Pepperton Cotton Mills in Jackson, Ga., and the cost is practically negligible.

Air is recirculated in both the opening room and picker room at Pepperton, so there are a large number of bags to be cleaned every day. Cleaning them manually was not only time consuming but a dirty operation. Now that the cleaner shown in the accompanying drawing is available for use, filter bag cleaning takes only a few minutes each day and there is practically no dust flying in the air for the operatives to breathe.

A "T" was inserted in the vacuum take-down pipe in the opening room, and a hand-operated cut-off valve was installed on the horizontal opening. Into this a short nipple was fitted.

Machine shop personnel cut one end out of two 55-gallon metal drums, cleaned them out thoroughly, and then welded the open ends together as indicated in the sketch. A hole large enough to provide a snug fit over the vacuum take-down nipple was cut into one end; into the other end a hole was cut large enough for a filter bag to be easily inserted but small enough to prevent the filter bag mounting ring from going through.

Then the tank made from the



MILL-MADE BAG CLEANER that can be used in any mill, regardless of type of card stripping system employed. Fan provides suction, exhausting into home-made dust box.

two drums was fitted to the vacuum take-down pipe (see illustration). To support the tank at the proper level above the floor, stands made of flat iron were provided.

Now the operative brings one bag at a time to the cleaner, holds the bag near the opening in the tank, and another operative opens the valve in the vacuum take-down.

Suction within pulls the bag into the tank, turning it wrong side out, and causes the bag to flap against the tank sides, shaking the dust and fine lint off and at the same time carrying it away to the waste receiving tank.

As soon as the bag is cleaned—it takes only a few seconds—the operative closes the valve, removes the bag from the tank, and installs it on the filter.

In mills where vacuum card stripping is not utilized, the filter bag cleaner described in TEXTILE INDUSTRIES for November, 1949, page 95, does a good job. Saco-Lowell Shops will either build the unit for a mill or furnish engineering drawings to the mills so they can make their own.

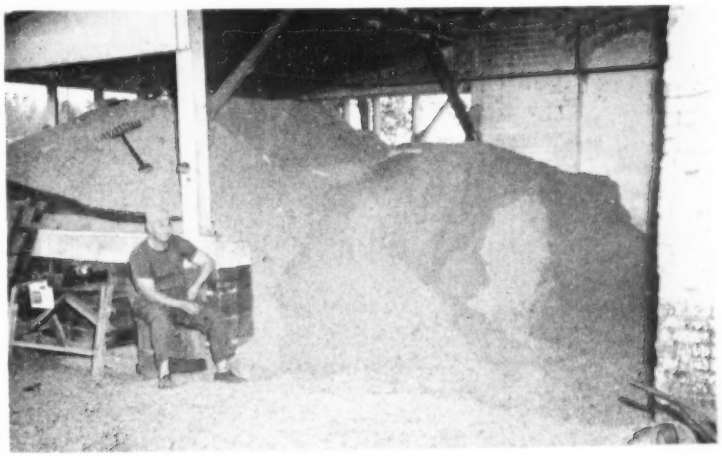
Blend of Peanut Hulls and Sawdust Makes Good Fuel

case 68

ONE Georgia textile mill solved the problem of high fuel bills by contacting the local peanut processors and saw mills. These two industries supply all of the peanut hulls and sawdust the mill can use.

The cost?—just the expense of hauling the fuel a few miles from the saw mill and the peanut mill to the plant.

The textile mill uses a 1½-ton truck to move the sawdust and peanut hulls, and the truck is used for other purposes when it is not in service hauling fuel. The blend of sawdust and peanut hulls makes an excellent fuel.



A supply of the low-cost fuel is kept under a shelter adjacent to the boiler room to keep it dry. A large stockpile of coal is available a few yards away in the event of a long rainy spell.

Bleach Range Processes Knitted Goods without Tension

case 69

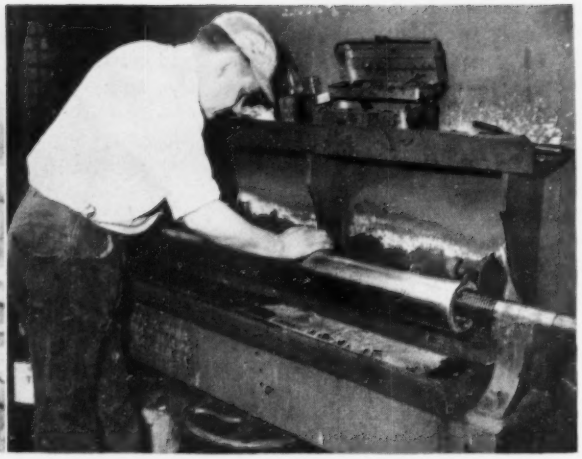
A SPECIALLY designed continuous bleaching range at the Union Underwear Company, Campbellsville, Ky., is reported by general manager Everett J. Moore to be producing more uniform goods with a better hand. It was designed by Buffalo Electro-Chemical Co. Inc., and built by Wiesner-Rapp to achieve tension-free handling of knit goods so as to minimize later shrinkage in laundering.

The plant processes 1x1 ribbed knitted cloth for briefs, flat knit goods for T-shirts, and Swiss-knit fabric for athletic shirts. The speed of the range is controlled to provide a constant poundage of cloth passing through, regardless of variations in cloth construction, making it unnecessary to change the chemical formula except when the fabric possesses unusual bleaching characteristics.

The tension-free handling is secured in the range by straight-line design to prevent distortion of cloth, the type scray, an 18-foot conveyor belt to the saturator, pneumatically-controlled squeeze rolls, design of J-box, and bucket-type piler.

The wet type J-box, equipped with Foxboro temperature controls, has two steam chests in the wet section to give flexibility to the system.

CORROSION RESISTANT LUBRICANT is applied to each chromium plated printing roll before it is stored to prevent damage to etched surface.



CORRODED PRINTING ROLL is ruined. Roll held by operative was stored without protective coating in drug room racks.

CASE HISTORY REPORTS

Lubricant Protects Printing Rolls While in Storage

case 70

ONE LARGE southern printing plant uses Texaco corrosion resistant lubricant on chromium plated printing rolls to prevent damage to the etched surfaces while the rolls are in storage. In this mill the storage area for engravings is located in the drug room where fumes which corrode the printing rolls are present throughout the year.

Upon investigation, the mill management decided to use a corrosion resistant lubricant on the rolls before placing them in the drug room storage racks. Now the rolls may be stored indefinitely, and the coating of lubricant preserves the engraved surfaces until the rolls are called for again for use on the printing machines.

Although accurate cost figures were not recorded for damaged rolls, the loss estimate amounted to "hundreds" of dollars each year before the mill started using the corrosion resistant lubricant.

Hosiery Pairer Counter Increases Productivity

case 71

DUKE Hosiery Corporation, Hickory, N. C., manufacturers of men's and boys' hose, has found that a hosiery pairer counter permitted an increase of more than 10% in productivity in the department. The pairer counter is made by Hickory Foundry & Machine Co., Hickory, N. C.

Further benefits from this machine, as reported by the Duke Hosiery Corporation, are: operating costs reduced; reduced waste in that the counter eliminates the likelihood of a surplus, shortage, or split pairs which make odds that sometimes make waste in the pairing department; improved quality by giving the operator a free mind from counting; improved operating conditions in that operators earn more money with less labor.

FOR FOLLOW-UP on any of the Case History Reports appearing in this section, readers may write direct to the manufacturer of the equipment or to the editors by using the Handy Return Card on page 194.

"We are turning down much cotton . . ."

This year we have rejected much cotton because of poor preparation at the gin. We have never seen as much immature bolls and neppy conditions. We have seen a lot of very rough cotton. The nep count has jumped tremendously, and when the cotton in the bale is examined this is understandable because it is full of immature, curled particles. The cotton certainly is more leafy than in the past.

We are turning down much cotton because we cannot afford to put the character of some of the shipments into our mills and maintain our standards. We are going to have additional costs and there is no avoiding this due to these conditions.—**Earl W. Starnes, technical superintendent, The Russell Manufacturing Co., Alexander City, Ala.**

Will spinners take action on Gin-Damaged Cotton?

Gin-damaged cotton and lowering of grades cause trouble for the spinners and cost them money. The author traces the history and background leading to the present situation, and he suggests that mills pay for cotton on the basis of what it is (rather than on the basis of what it appears to be). He offers that if ginners are going in the wrong direction with their ideas of excessive cleaning, only refusal by spinning mills to accept cotton which is gin-damaged can change that direction.

A Special Correspondent

EXCLUSIVE

COTTON has been known for a good many centuries as a fiber suitable for making yarn and cloth, but its great preeminence and commanding position as a textile fiber really began with the invention of the saw-type cotton gin. That machine offered the first practical method of removing the lint from the cotton seed except by hand, and of course pulling the lint off of cotton seed by hand resulted in a production of only a few ounces of lint a day for each person engaged in removing it from the seed.

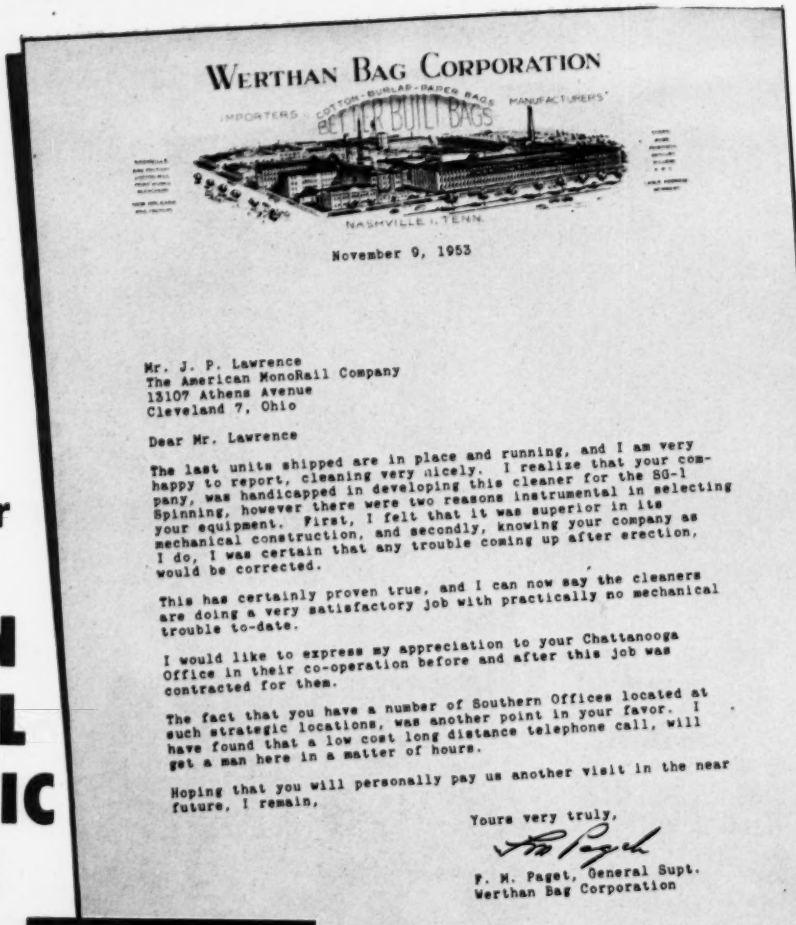
Consequently, even with the most poverty-stricken laborers or with slaves doing this work, cotton was relatively expensive, and since it was harder to spin cotton into yarn than to spin the longer fibers like wool and flax, and since yarn made from these longer fibers was more durable than the cotton yarn, cotton did not really come into its own as a prime textile fiber until after two basic inventions made it possible to produce cotton yarns very cheaply.

One of these inventions was the spinning frame, devised by Arkwright in 1768. With the early models of these frames, one spinner could tend 16 spindles, and of course improvement soon made it possible for a spinner to handle twice that many, and later, ten to 100 times as many. This invention, which reduced the cost of making yarn out of cotton and greatly facilitated the ease of producing such yarn, created a greatly expanded demand for cotton to be spun. The invention of the saw-type cotton gin in 1793 by Eli Whitney afforded a means of readily removing the lint from the seed cheaply and in great quantities, and made cotton a tremendously important world commodity.

Cotton yarns and cloth literally built the British Empire, and the production of cotton opened up to cultivation practically all of the good land in the southern section of the United States. The economy

another satisfied user of

AMERICAN MONORAIL AUTOMATIC CLEANING



WERTHAN BAG CORPORATION

IMPORTERS · COTTON · BURLAP · PAPER BAGS · MANUFACTURERS

BETTER BUILT BAGS

NASHVILLE 1, TENN.

November 9, 1953

Mr. J. P. Lawrence
The American MonoRail Company
13107 Athens Avenue
Cleveland 7, Ohio

Dear Mr. Lawrence

The last units shipped are in place and running, and I am very happy to report, cleaning very nicely. I realize that your company, was handicapped in developing this cleaner for the SG-1 Spinning, however there were two reasons instrumental in selecting your equipment. First, I felt that it was superior in its mechanical construction, and secondly, knowing your company as I do, I was certain that any trouble coming up after erection, would be corrected.

This has certainly proven true, and I can now say the cleaners are doing a very satisfactory job with practically no mechanical trouble to-date.

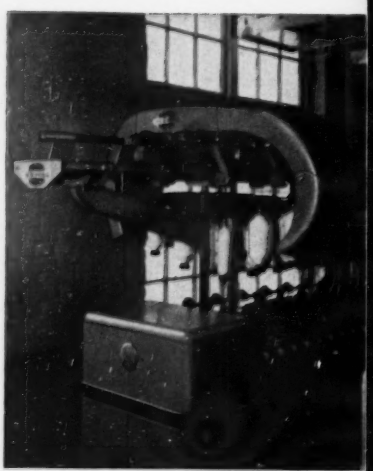
I would like to express my appreciation to your Chattanooga Office in their co-operation before and after this job was contracted for them.

The fact that you have a number of Southern Offices located at such strategic locations, was another point in your favor. I have found that a low cost long distance telephone call, will get a man here in a matter of hours.

Hoping that you will personally pay us another visit in the near future, I remain,

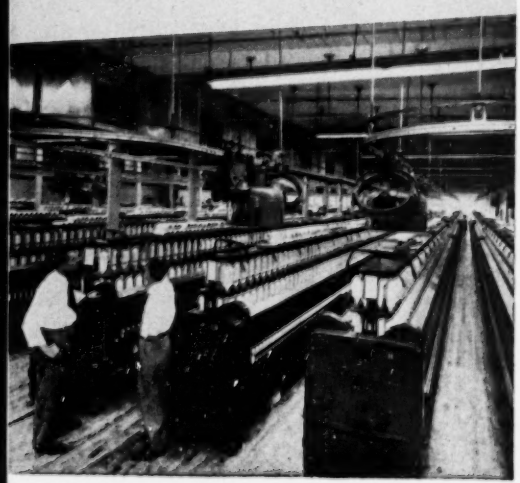
Yours very truly,

F. M. Paget, General Supt.
Werthan Bag Corporation



TWO TYPES AVAILABLE

American MonoRail Automatic Cleaners can now be creel mounted — TRI-RAIL — or suspended from the the ceiling — MONO-Rail. Both are giving satisfactory service. Let your near-by representative give you the complete story.



AMERICAN OVERHEAD HANDLING EQUIPMENT

MONORAIL COMPANY

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of these southern states rested almost entirely on cotton during the 19th Century. Since the cultivation of cotton required a tremendous amount of hand labor, slaves were introduced into the southern states to get this necessary amount of labor as quickly and cheaply as possible. The labor cost of a slave was practically nothing, since the amortization of his cost over his expected useful life would hardly amount to more than five cents a day, and he was fed and clothed off of the land and the labor of other slaves, and land was cheap.

The world was therefore offered, within a period of three or four generations, tremendous new quantities of clothing and household textiles at low cost. The great cheapness of the slave labor made it possible to lavish a great deal of care upon the cultivation of the cotton plants and the picking of the matured cotton. Weeds and grass were chopped out by hand, and when the cotton opened, it was carefully picked by dexterous fingers which gathered not the slightest particle of leaf or trash along with the lint.

The gins were of simple construction, and were not designed to clean cotton except for the removal of some of the motes. The baled lint was extremely clean and required practically no cleaning in the cotton mill except for the removal of motes, which were a natural part of the cotton growth. The percentage of foreign matter in this cotton, as we think of foreign matter today, was quite negligible.

The Civil War freed the slaves from titular, but not from economic, bondage. Cotton was still the principal means of livelihood in the southern states, and it was distinctively a pauper crop. The methods used from time immemorial in its cultivation could only be employed where slave or pauper labor was available. While for many years the southern and southwestern sections of the United States produced the bulk of the world crop, the preeminence of these states as a cotton raising section was maintained by cheap labor and low prices. Other sections of the world with cotton land also had cheap labor, and this imposed a constant brake on any rise in the price of cotton, and consequent improvement in the lot of the farmer.

All of these facts are moderately well known to manufacturers of cotton goods, but we recapitulate them to emphasize the tremendous revolution in cotton which has taken place in the last 40 years. Practically everything about it has changed except the fact that it is still cotton. Early in the 20th Century, the United States began to forge to the front as an industrial nation, and since industrialization must draw employees from the farms, the great surplus of cheap farm labor which had previously existed began to diminish noticeably in the early years of this century.

At the outbreak of the First World War, the pace of industrialization in this country increased rapidly, and the negro laborers who had been so plentiful on the cotton plantations began to go to the cities for what looked like very large wages to them, and a short week of only 55 hours. This movement was speeded up in 1914 and 1915 when the first shock of the war had driven the price of cotton down to around five cents a pound and this had caused great suffering on American farms so that several million laborers felt that their best hope was to leave the farm and go to town.

Two or three years later, however, after the United States entered the war, there was a good market for cotton, and large crops were raised. Being raised with insufficient labor for both cultivation and picking, great quantities of low grade cotton began to appear, and it was at this point that the great revolution in cotton cultivation and handling might be said to have started.

Prior to this time, the United States had consumed less than half of the cotton it produced, and its mills ran almost exclusively on very high-grade cotton. Some of the best cotton available in the market today would probably have been rejected as pretty poor stuff by a man making sheeting in 1900. There was not a very large percentage of low grade cotton produced in those days, and virtually all of that went to England or Europe, where some cotton cleaning machinery had been devised for handling it.

In this country, however, cotton opening and cleaning machinery was virtually non-existent. The typical mill had three processes of pickers, and the bales, which were not compressed, were opened directly behind the hoppers of the breaker pickers. The pickers did all of the opening and cleaning of the cotton while they were making laps, and there was really very little cleaning to do. The blending of the cotton was done by mixing laps on the aprons of the intermediate and finisher pickers, and not much blending was needed, because of the great number of doubling processes in a mill at that time. You got a lot of blending whether you tried to or not.

When an industry with such e-

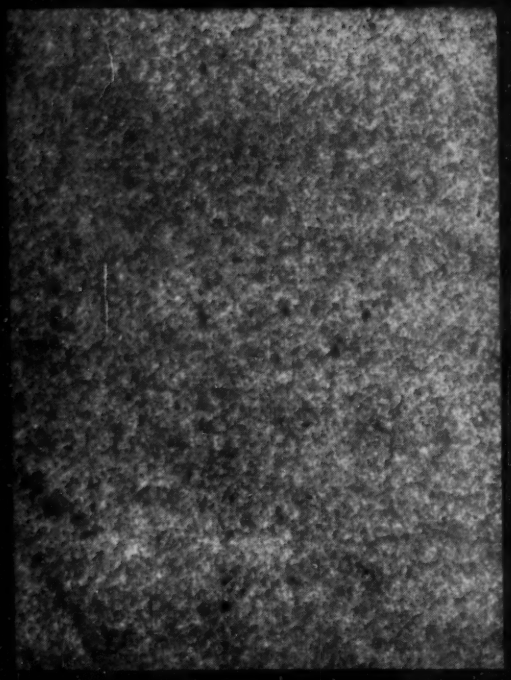
"Mills have been slow to recognize hidden damage . . ."

It is undoubtedly true that in recent years producers and ginners have profited by the fact that mills, as a whole, have been slow to recognize hidden damage in cotton caused by improper harvesting, handling, and ginning. Experience in spinning and keen competition in the market have necessitated more careful inspection in the classroom and more testing in the laboratory.

This increased knowledge of spinning values is now helping to bring to light this damage, and will quickly be reflected pricewise to the producer.

It is therefore necessary that some system be devised for cleaning cotton before it is ginned other than the present beating method, which imbeds fine trash particles and neps into the fiber in such a way that they cannot be removed, which lowers the quality of the products being produced.—**A. W. Fisher, vice-president, Cannon Mills Company.**

ORDINARY MACHINE OIL. Ultraviolet light proves that ordinary machine oil is hard to scour. Oil that remains in the textile prevents level dyeing.



SUNOTEX MACHINE OIL. Ultraviolet light proves scourability of Sunotex. This oil scours easily and completely, leaves no stain, permits level dyeing.

ULTRAVIOLET LIGHT PROVES SCOURABILITY OF SUNOTEX MACHINE OIL

These swatches were oil spotted: one with ordinary machine oil, the other with Sunotex. After scouring, they both *looked* clean. To make sure, both swatches were photographed under ultraviolet light. The swatch spotted with ordinary machine oil fluoresced brightly, showing that even though it looked clean, it was still badly spotted. The swatch spotted with Sunotex didn't fluoresce, proving it to be oil-free after scouring.

Here's proof of how Sunotex helps prevent spoiled goods and unlevel dyeing. It scours easily, leaves no stain, does not damage fabrics.

For more information, call your nearest Sun office or write SUN OIL COMPANY, Phila. 3, Pa., Dept. TI-2.

INDUSTRIAL PRODUCTS DEPARTMENT

SUN OIL COMPANY

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quipment was called upon to process trashy cotton, it was in serious straits and something had to be done very quickly to provide means for handling this dirty raw material. From that day until the present time, there has been a constant race on between the cotton raisers, the ginners, and the cotton mills, to adjust themselves to changing conditions. As soon as cotton mills put in cleaning machinery which permitted handling trashier stock, the farmers and ginners cooperated by producing such stock. As soon as the cotton ginning industry introduced cleaning machinery for handling very dirty raw cotton, the farmers began presenting much dirtier cotton.

Prior to 1920, cotton gins were of very simple construction, and it was about that time that gin manufacturers began to explore the possibilities of machinery for separating cotton bolls from the lint and taking enough leaves and grass and other foreign matter out of the raw cotton to deliver a creditable sample in the bale.

It was about 1915 that cotton mills first began to feel the necessity of cleaning machinery, and by 1920 a number of mills were provided with rudimentary cleaning equipment. This seldom went beyond a Crighton or Buckley opener, and the other cleaning machines which had been developed in England and Europe did not seem to find favor in the United States. We gradually developed cotton cleaning machinery of our own.

Since about 1920 when the gin machinery industry first began seriously experimenting with cleaning machinery, there has been a constant extension of the amount of cleaning done at the cotton gins, and this has had a most profound effect on the quality and character of the cotton delivered to the mill. The presence of this elaborate cleaning machinery in the gins made it possible for the farmers to present for ginning masses of cotton stalks, twigs, bolls, grass, and miscellaneous rubbish which would necessarily have been burned as refuse prior to about 1920.

Whereas it required about 1200 to 1300 pounds of hand-picked seed cotton to produce a 500-pound bale of lint cotton, now it quite commonly takes 2000 to 2500 pounds of the stuff the modern gin must cope with to turn out a 500-pound bale, and sometimes a farmer will deliver over 4000 pounds of this miscellaneous vegetation from which the ginner will finally extract 500 pounds of lint.

This capacity of the ginners to turn out a fairly decent looking sample from a mass of rubbish mixed with cotton has resulted in drastic changes in the methods of gathering cotton. 40 years ago all cotton which opened naturally was picked at once by hand, and with great care. Some of the late cotton which was struck by frost or cool weather before the bolls opened would have these bolls snapped off of the stem and ginned into a very inferior grade of what was known as "bolly cotton." No one who ever tried to run it with old-style cotton mill equipment will ever forget the experience.

Today, a great quantity of the cotton crop is gathered in this same manner. The entire boll is pulled off of the stalk and delivered to the gin, where the lint is separated mechanically from the boll instead of being carefully picked out by hand as it used to be.

A few years ago a successful cotton picking machine was introduced, and we understand that between 20 and 25 per cent of the entire American crop is now being gathered with these machines. In the course of a few more years, it is almost certain that the bulk of the American cotton crop will be picked with these machines, which can gather cotton so much more cheaply than it can be picked by hand. At the present time, there is such a shortage of cotton picking labor that planters will pay almost as much to have cotton picked by the machines as they would have to pay for hand picking if the cotton pickers could be obtained.

As the machines become plentiful, the differential between hand picking and machine picking will rapidly increase, and under highly competitive conditions these machines might be able to pick cotton for about 75 cents a hundred. They naturally pick up a good deal of grass and a lot of leaves and a certain quantity of leaf stems and twigs which must be separated in the gin from the lint.

There is also the practice of "sledding" cotton. Where picking labor or picking machines are not available, this sled, or stripper, is used to strip everything off of the cotton stalk. The limbs and twigs, along with the bolls and leaves and any vagrant weeds that happen to be present, are all stripped off and presented to the gin. These methods of harvesting cotton mechanically have been forced on the

"Stay with cotton or convert . . . "

We who spin cotton have to take what you who produce cotton give us, quality-wise, price-wise, and so on. To put it bluntly, we're pretty much at your mercy. Whatever you do with the fiber—the extent to which you affect cotton quality in any way, or cotton prices—has a very direct bearing on our ability to make cotton competitive.

The great majority of manufacturers who spin and weave textiles (at least most of those in the cotton system mills which comprise the major segment of the industry) prefer cotton and want to stay with it. At the same time, however, they have an immediate responsibility to their stockholders, directors, and employees to make the business pay.

Hardly a day passes but that some cotton manufacturer is facing the difficult decision of whether, in order to meet that responsibility, he should stay with cotton or convert some or all of his production to synthetics . . . you can help very substantially in moving your fine product through the textile mill door by remaining alert to the best interests of the cotton spinner.—**H. K. Hallett, vice-president, Kendall Mills; president, American Cotton Manufacturers Institute (before the Spinner-Breeder Conference, November 30, 1953).**

HAYSSEN MFG. COMPANY

Since 1910, One of the World's Largest Manufacturers of Wrapping Machines

DEPT. TI-2, SHEBOYGAN, WISCONSIN

WRAP ALMOST ANY SHAPE OR SIZE PRODUCT AUTOMATICALLY WITH A HAYSSEN ...SAVE HALF YOUR MACHINE COST

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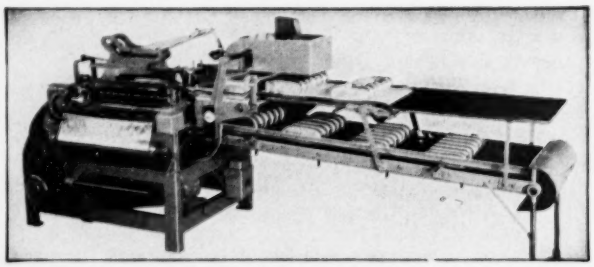

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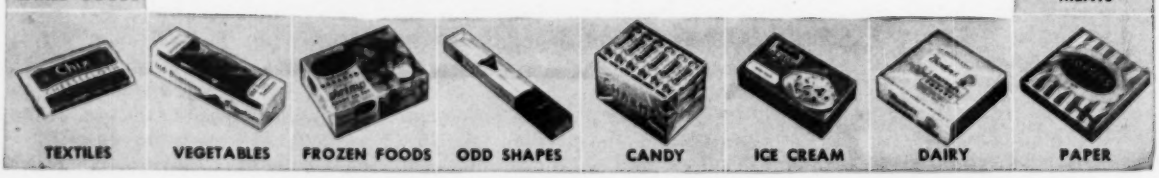
MEATS


TEXTILES | VEGETABLES | FROZEN FOODS | ODD SHAPES | CANDY | ICE CREAM | DAIRY | PAPER

cotton growers by the constantly rising price of farm labor.

In 1900, the typical wage for a cotton picker in one of the southern states would be 75 cents a day or less. In many sections laborers could be had for 50 cents a day. This was not an 8-hour day, but a sun-up to sun-down proposition. Farm wages throughout the United States were low in those days. The Department of Agriculture reports that in 1910 the average farm wage for the entire United States was $28.08 a month where a man boarded himself. This wage remained practically the same until 1915, when it went up steadily until 1920, at which time the average was $65.40.

The farm depression started in 1921 and wages went down again, but hovered around an average of about $50 a month until the Great Depression started in 1930, when farm wages dropped down to a low of $25.67 a month in 1933. The extremely low wages paid to large numbers of southern cotton field hands helped to keep the national average down, but since 1933, the cost of farm help has steadily risen until in 1952 the average stood at about $150 a month.

About 1900 the price for picking cotton probably averaged about 40 cents a hundred, and since about 1250 pounds of seed cotton would make a bale, it cost about $5 a bale to get cotton picked. This picking cost advanced very little until after 1915, when there began to be a noticeable farm labor shortage in the South.

Under the old system of gathering and ginning cotton, it was necessary that the cotton be picked as quickly as possible after it opened, and that meant that a very large number of cotton picking people must be available. Delay in picking the cotton meant that more tinged cotton would be ginned and that it would contain objectionable quantities of leaf. The shortages of picking labor soon drove up the cost of picking, and at this time cotton pickers are getting as high as $5 a hundred, or about $65 a bale for hand-picked cotton.

Cotton which is pulled or snapped has recently been gathered for around $3 a hundred, but it takes approximately 2000 to 2500 pounds of this stuff to make a bale, so that the total cost of picking per bale is often more when the cotton is harvested this way than when it is picked properly.

The snapping or pulling has generally been resorted to on account of a shortage of labor. The cotton pickers find that they can make just as much picking the cotton that way, and sometimes more, and they therefore refuse to pick cotton in the old painstaking fashion. There is little or no reason to think that there will be, at any time in the foreseeable future, a considerable movement of labor back to the farms. The trend is in the opposite direction, and the relief rolls rather than the farms will take care of unemployed people in future.

A Look into the Future

As soon as enough cotton picking machines are available to provide competition between the owners of these machines, it is likely that the practice of snapping or pulling cotton will be abandoned, and practically all cotton on land flat enough to permit the use of a machine, will be mechanically picked. A small farmer can not afford to buy a picking machine, but custom pickers will take care of his crop.

On the rough, up-country farms, where cotton raising has always been more or less a family affair, hand picking will continue to be the rule, and this hand-picked cotton can supply the needs of those mills requiring an unusually clean cotton in the staples available. In time, hand-picked cotton will probably bring a premium, so that wherever cotton can be picked by machine it will be gathered that way, except that some of the very long staples may be picked by hand to supply the need for hand-picked cotton in staples which are not produced in the uplands where cotton will probably continue to be picked by hand.

The sledding of cotton will very likely be continued for a substantial portion of the crop, and a lot of the low grades on the market will be this sledded cotton, because it is naturally quite grassy, and there are quantities of twigs, heavy leaf, bark, and other rough trash which is very hard to get out in the gins.

We in the textile industry can therefore probably resign ourselves to the prospect of having to handle more and more mechanically harvested cotton each year. This is no temporary phase of cotton production, but is a revolution which has permanently changed the methods of planting, harvesting

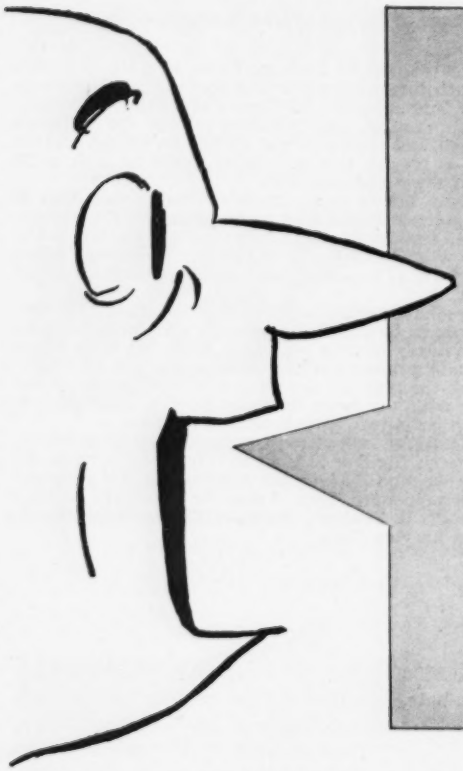
"The cotton fiber is being injured tremendously . . . "

There are many malpractices taking place, and we as cotton buyers and manufacturers have felt that we could best assist in the perfection of this program [of Cotton Quality Committee] by sitting in, cooperating, and pointing out to the industry these bad practices and their adverse effects on cotton and its fabrics. In doing so, we felt that something would be done more rapidly to correct these bad practices.

There is no doubt but in many instances the cotton fiber is being injured tremendously and made non-usable for certain end products due to the methods and manner in which it is being harvested and ginned. There is entirely too much overheating, overmachining, breaking, kinking, and nepping up of the cotton fibers.

In our own personal operations, we are attempting to by-pass cotton that appears to be handled in such a manner. I am sure that the entire industry in time will begin to do the same thing if the producers and ginners continue these malpractices. In the meantime, I think the best we can do is to cooperate and point out these things with the hope that the farmers and ginners will make the proper improvements and corrections.

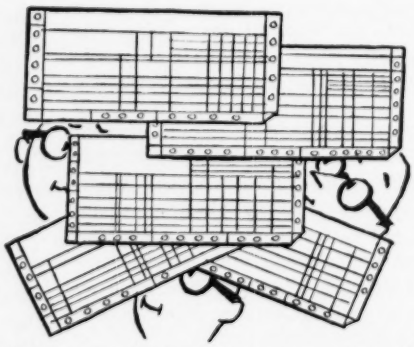
It is my personal opinion that more progress can be made by cooperating and assisting rather than by threat or boycott. Of course, if in time we find that we are not making any progress by following this procedure, then it may be necessary to take more vital steps.—**T. D. Truluck, manager, Cotton Department, Deering, Milliken Service Corp.**



"I DIDN'T know that about the 'SANFORIZED' trade-mark!"

1.

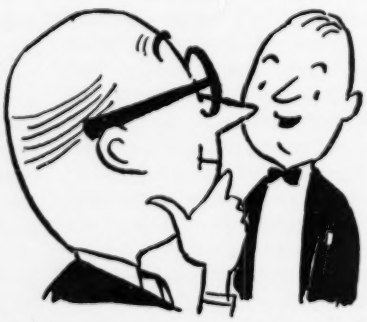
Charlie discusses "Sanforized" fabrics that are running through the plant, with the head of the licensee's "Sanforized" department.

2. 

He checks over the detailed card records that each licensee has to keep on all the "Sanforized" fabrics it produces.

5.

Charlie selects "Sanforized" fabrics at random from stock room for shipment to the laboratory at Troy, N. Y. for triple checking.

6. 

Charlie discusses special shrinkage problems with head of the licensee's "Sanforized" department.

TODAY, we'd like to take you on a behind-the-scenes trip.

It will cost you nothing. It may open your eyes.

We want to show you exactly why "Sanforized" is loved, trusted, and demanded by millions. For believe us—the "Sanforized" trade-mark doesn't just "happen."

Behind it, for one thing, lies the daily work of twenty-odd "Sanforized" fieldmen—men who know shrinkage from A to Z. They drop in, unannounced, on the plants which are licensed to turn out "Sanforized" yardage.

Their one aim: to make sure that the "Sanforized" trade-mark will ALWAYS mean dependable, unchanging protection against shrinkage. Let's follow one of these fieldmen (call him "Charlie") on a typical day's work:

3.

Charlie makes his own wash tests of "Sanforized" fabrics, double checking the licensee's own tests.

4.

As part of the wash test, he measures each sample to make sure the fabric meets the rigid "Sanforized" specifications.

7.

After reporting his findings to the superintendent of the plant, he prepares a detailed report for his home office in Troy.

THIS GOES ON day after day, month after month, year after year, in mill after mill—and all over the world.

Not by one man. But by more than twenty men in this country alone.

It's the behind-the-scenes work that *we* do, in addition to the behind-the-counter work that *you* do, that has won the love and trust of millions for the "Sanforized" label!

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how the Pelzer Plant* does it—on "Curity"® Diapers

Operator in the background is preparing a second pattern on an extra frame. It takes less than a minute to transfer the tying head from one frame to another.

Tying the prepared pattern at 250 knots per minute. Note that the machine is almost directly over the loom beam—a valuable feature where space is crowded. Insert . . . Combing the warp before tying.

*The Pelzer Plant of Kendall Mills weaves *"Curity"* diapers. Beams run about 3400 ends of 26's cotton.

This plant reports that standard tying production is 25 warps in 8 hours. They save 15% in loom down time, when compared with their previous method of mechanical portable tying . . . a 24% saving in actual tying time . . . and saves the time of two operators. 24% less time is required for starting up the looms . . . pulling knots through, redrawing ends, etc.

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and ginning cotton, and therefore cotton spinners need to familiarize themselves more and more intimately with some of the important changes that have been taking place in the character of the cotton that they buy.

Lowering of Grades. Practically all spinners have commented at one time or another on the fact that cotton which is legally tenderable as Strict Middling, is far from being Strict Middling cotton as it was known years ago. It is perhaps Strict Middling as far as a comparison with a Government Standard Box will indicate, but these Government Standards were based on visible trash, and they go back to a day when all cotton was ginned in the same manner, and visible trash quite fairly determined the variations in cotton grades.

The Present Situation

Today, a spinner will often find that a bale of cotton which grades Good Middling will turn out yarn no cleaner than can be made from other cotton graded as Middling. This cotton which grades Good Middling may have a nep count* in the bale twice to three times as great as the nep count in a bale of Low Middling or Strict Good Ordinary cotton with approximately the same fiber fineness.

What Test Instruments Show. A great many tests made by a number of different laboratories have shown conclusively that there is a direct relationship between the fiber fineness of cotton and its natural neppiness. In comparing nep counts on different lots of cotton, it is always necessary to take into account the fiber fineness as shown by the Micronaire or some similar instrument.

A recent series of tests covered one lot of cotton of extraordinary apparent cleanliness, and another lot of unusual dirtiness. Eight lots of the very clean cotton showed an average trash percentage, as determined by a Shirley Analyzer, of 1.44%. The fiber fineness as shown by the Micronaire averaged 5.14. This cotton was abnormally clean.

It had been bought as being Strict Middling or slightly better, yet the Shirley Analyzer test would show it to contain a percentage of trash consistent with Middling Fair cotton, which is now practically non-existent.

The only possible explanation for the small amount of trash in this cotton was that it had been heavily cleaned at the gin. This cleaning had removed a large proportion of the motes in the cotton, and had thereby reduced the total amount of trash to a very low point. This small percentage of residual trash was, however, stuff very difficult to remove. It was sufficient to have caused this cotton to be graded only slightly better than Strict Middling, when on the basis of its trash content, it should have carried a much higher grade.

The nep count on this cotton averaged 22.2 neps per 50-milligram sample. This would be about two or three times as many neps as would be expected in cotton of the grade indicated by the Shirley Analyzer test, and with a Micronaire fineness of 5.14.

The very dirty cotton checked in this same series showed three lots with a non-lint content averaging 7.8% as shown by a Shirley Analyzer, with a Micronaire fineness of 4.5 and a nep count of 13.3 neps per 50-milligram sample. These tests picture the profound differences encountered in the characteristics of cotton available to spinners today. Here was cotton of unusual apparent cleanness which actually wasn't clean, since it was abnormally neppy for its apparent grade. On the other hand, there was cotton of extraordinary dirtiness with a low nep count. Obviously, if the loose trash in this low grade cotton could be successfully removed without raising the nep count materially, it would be possible to make a less neppy yarn out of this than out of the supposedly high-grade cotton.

Spinning Mills Take Beating. These tests have been checked by many others, and these particular ones were cited simply because they represented such extremes. In between these extremes will be found ample confirmation in everyday tests of the fact that ginning methods have a tremendous influence on the spinning qualities of cotton. It is obviously wasteful to pay a premium for Strict Middling cotton which will make yarn no cleaner than can be made from Middling cotton. If an excessive amount of precleaning is being done at the gins to raise the apparent grade of cotton, while leaving in the bale too much of the kind of trash which is hardest to take out, the spinning mills are taking a beating by buying this kind of cotton. They would do much better to get cotton ginned with greater regard to protecting the spinnability of the lint, and then remove the trash at the spinning mill.

(Continued on page 157)

"It would be tragic to damage the fiber . . ."

I think the time has come when it would be prudent for the farmers, ginners, and spinners to analyze their equipment to see if the cotton fiber is being abused by mechanical pickers, precleaning machinery, or dryers. It would be tragic, to say the least, for anyone connected with cotton to damage the fiber that means so much to so many.—**J. Craig Smith, president and treasurer, Avondale Mills.**

*There is no standardized method for counting neps, and the problem of devising standards for nep counts has always been complicated by the question of "What is a nep?"

In making all of the nep counts referred to in this article, every piece of tangled fibrous material, and every piece of foreign matter having fibers attached to it was counted as a nep. The count was made under a magnifying glass, with a magnification of approximately six, and many tiny neppy masses were counted which many mill laboratories would ignore.

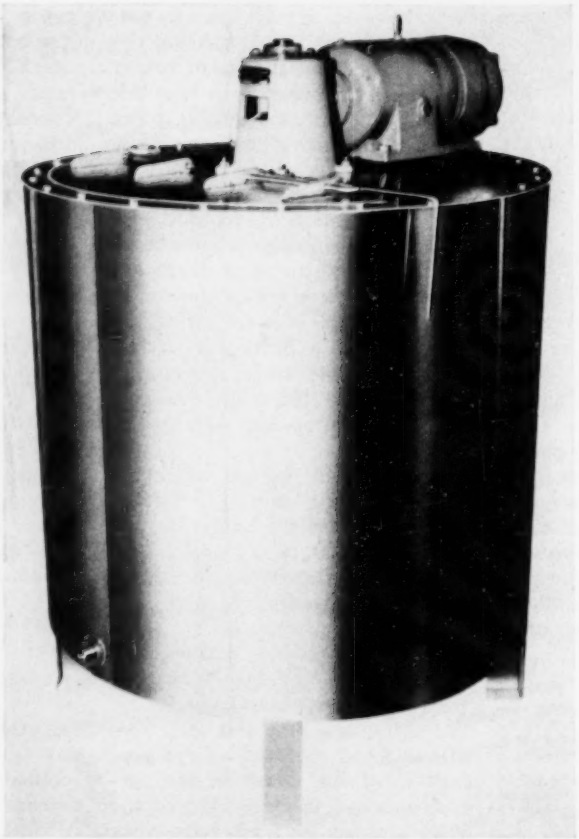
Furthermore, many mill laboratories classify as leaf trash pieces of fractured mote which a magnifying glass will show as covered on one side with fiber. In nep counts referred to in this article, all of these pieces of foreign matter are counted with the neps.

All cotton to be tested for neps is sorted on a Suter-Webb Sorter, and laid on black velvet.

Many mill laboratories count the neps in card web, but do not attempt to count the neps in the cotton in the bales. This results in inconclusive information, since it will never be known whether the neps in the card web were caused by originally neppy cotton, or by some of the manufacturing processes. By making all nep counts the same way, regardless of whether baled cotton, picker laps, card sliver, or comber sliver is to be tested, the results should be nearly comparable

Since the question of what is a nep is largely a personal question, nep counts to be of value must be made by the same person so that comparisons can be valid. Otherwise nep counts are frequently meaningless when compared with other nep counts.

STAINLESS STEEL MIXING AND STORAGE KETTLES



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Gin-Damaged Cotton

(Continued from page 155)

Some Ginners Think Cleaning Has Gone Too Far. In the opinion of some gin machinery manufacturers, the precleaning of cotton at the gin has gone entirely too far, and cotton put through these very elaborate precleaning systems has been over-machined and damaged from a spinning standpoint. The farmer, of course, is not interested in the spinning qualities of his bale of cotton. He is only interested in its apparent grade, and in its staple. Those are the things which affect his price, and if over-machining cotton at the gin will make it sell at a higher price, the farmer and the ginner cannot be blamed for over-machining it.

The spinner is, however, vitally interested in his end product. Nothing else makes any difference. If it were possible for him to make cleaner yarn out of Low Middling cotton than out of Good Middling, he would certainly never buy any Good Middling stock. If the ginner makes cotton which is really equal to Strict Low or Middling cotton appear to be Strict Middling to Good Middling cotton, the spinner is taking the loss in paying for something that he isn't getting.

Effect of Cotton Dryer. In addition to the normal hazards of putting cotton through these very elaborate ginning systems, must be added the danger of the cotton dryer, which is now a part of practically every modern gin outfit. 50 years ago, when cotton was picked by hand, it was only picked dry. After a rain the picking would be stopped until the cotton had thoroughly dried out. If a little bit of it did get wet accidentally, it was spread out in the sunshine and dried before going to the gin. It was impossible to gin cotton which was very wet.

The introduction of mechanical cotton harvesting methods made the dryer a necessity. The first dryers were operated with steam coils, and temperatures injurious to the cotton could not be reached. Now, however, practically all dryers are operated with gas or oil burners, and temperatures can be reached which will melt the solder out of the conveying pipes.

Where such high temperatures can be maintained in the air transporting the cotton, a little carelessness can cause serious consequences. These drying systems are nominally protected by thermostatic controls, but in many cases the thermostat is ignored and the temperature regulated manually. The dryer may be set to handle a truckload of very damp cotton, and this may be followed by a truckload of very dry cotton which will be damaged by heating it up in a dryer adjusted for cotton with a lot of water in it.

The over-drying of cotton undoubtedly makes the seed coating brittle, and a higher percentage of seed coating fragments can be expected in the bale than with normal ginning. Excessive machining in elaborate precleaning machinery will increase the quantity of these seed coating fragments. Although the precleaners take out quantities of motes, they tend to break up many of the motes and leave quantities of neppy material in the cotton going to the gin saws.

These neps are probably the most difficult of all foreign matter to take out of cotton in the mill. They are light, and they cling to the good lint so that it is difficult to remove them, but very easy to break them up into still smaller neps, which are even more difficult to separate from the lint. Control of neps is a question of control of mote removal without breaking up the motes.

Will Mills Buy on Nep Content? To protect themselves from the conditions just discussed, spinning mills must sooner or later begin to pay more attention to the nature of the trash content in their cotton. During the past few years a great many mills have started buying cotton on the basis of fiber fineness, because they found that this fiber fineness was related to neppiness. Within the next few years a great many mills will probably have to adopt the practice of checking cotton for neps. If mills begin doing this and rejecting unusually neppy cotton, ginners indulging in practices which caused this neppiness will have to correct them.

A good many spinning mills with inadequate cleaning machinery have been buying the higher grades of cotton rather than installing better cleaning machinery to handle trashier cotton. Undoubtedly many of these mills are buying quantities of cotton which only *looks* clean, and actually will not make as clean yarn as could be made from lower grade stock.

Some mills which have installed modern cleaning machinery have been disappointed in the very slight improvement in the appearance of the yarn. Analyses of their work show that these mills are running cotton with an abnormally low nominal trash content. There is nothing much that their improved cleaning machinery can remove, since the residual trash in some of this overworked cotton is sometimes practically nothing but virtually irremovable stuff. The spinning mill with highly efficient cleaning machinery is better off to use that machinery for removing trash which it is suitable for removing, from cotton which is low in nep count, even if it contains a good bit of loose trash.

Spinner Action? ?

It seems high time for spinning mills to be doing something about these trends that we have discussed. If, from now on, spinning mills are going to have to contend with mechanically picked or harvested cotton almost entirely, they should resist having cotton thrust upon them which will make specky, neppy yarn no matter how clean it seems to be when the bale is sampled.

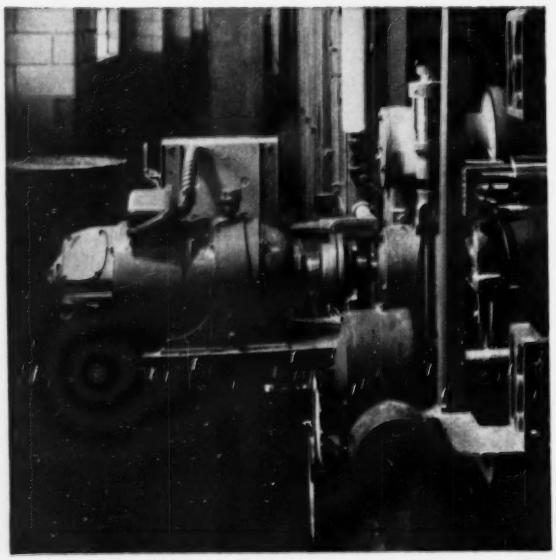
A great many spinners have hoped for years that better cleaning methods at the gins would considerably reduce the amount of cleaning needed at the mill, but observations on cotton as presently precleaned in gins indicate that these cleaning methods are not always producing desirable results for the spinners. In order to produce a reasonably clean sample from some of the stuff presented to him, the ginner has to use a great deal of precleaning machinery, and when cotton not needing all of this precleaning is put through this extensive line of machinery it is damaged.

The spinning mill might be much better off if the ginner did less cleaning, and at the same time less

ENGINEERING REPORTS:

EASY INSTALLATION, SIMPLE MAINTENANCE are features of this multiple-motor dyeing range at Grace Bleachery. This construction view shows several of the new three-piece G-E gear-motors being positioned. Although G-E drives such as this will operate for a long time with only routine maintenance, motors may be removed without disengaging the gears.

G-E Packaged Range Drive steps up



EASY-TO-MAINTAIN, G-E three-piece gear-motor runs this starching operation on a plisse range. This motor is only one of the many types that G.E. manufactures for the textile industry. Others include: totally-enclosed, ball-bearing loom motors; open, lint-proof motors; vertical motors for twisters and many others to meet your special requirements.

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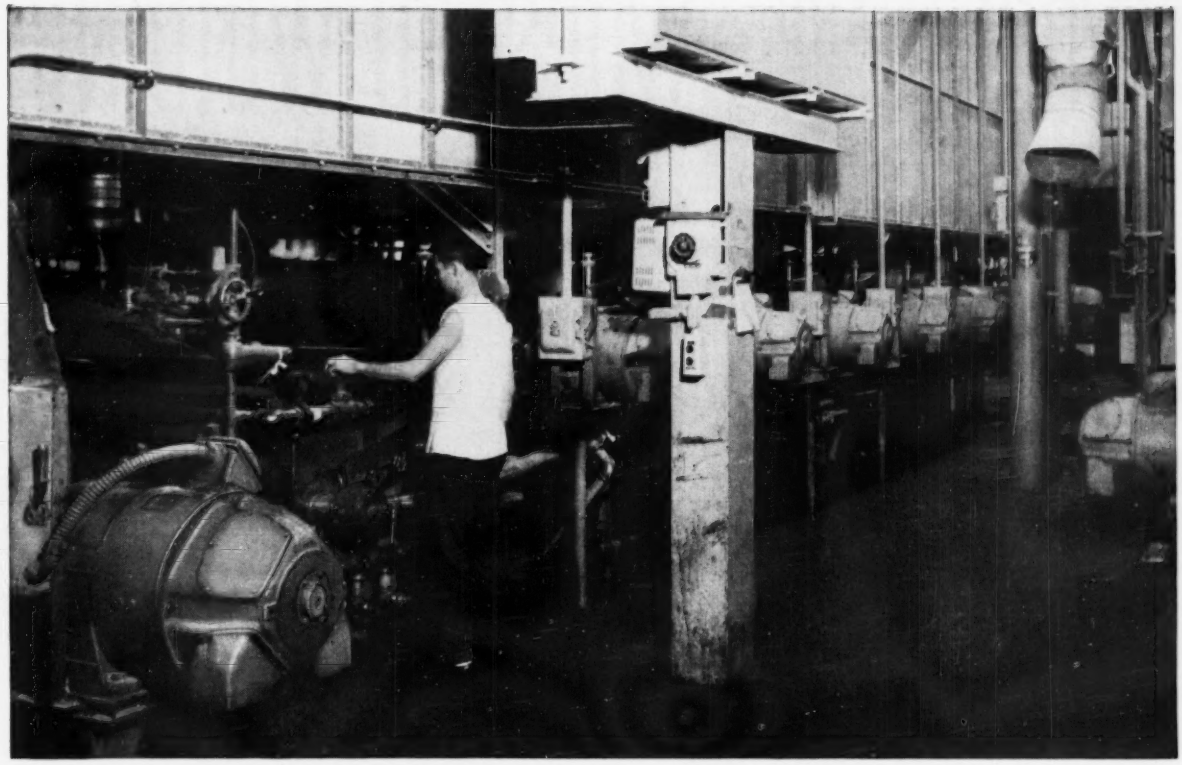
Washing, drying, bleaching, mercerizing, dyeing—whatever your range operation may be—the General Electric packaged range drive can give you higher production per man-hour with lower maintenance costs.

Efficient co-ordination of the drive elements through centralized control is one of the factors making this increased output possible by providing accurate control of cloth tension at all operating speeds. This assures you maximum cloth uniformity with minimum supervision and thus with lower costs.

ONLY THREE STANDARD COMPONENTS make up the G-E adjustable-voltage drive system: the operator's finger-tip control station which can be installed in any convenient location; three-piece range-driving motors and their associated rheostats; and the packaged speed variator unit, containing motor-generator set and exciter, which can be located anywhere to conserve valuable range space.

YOU CAN CUT RANGE COSTS with the easy-to-maintain G-E three-piece gear-motors. They need no special mounting and may be easily removed for servicing without disconnecting the gears or removing the motor base from the foundation. Along with easy maintenance, sturdiness and smooth operation combine to assure you long life for the motor itself.



HIGH FINISHING OUTPUT of Spring Cotton Mills' Grace Bleachery is speeded by three-piece G-E gear-motors. Control system with master rheostat (on center post) provides finger-tip control of entire installation. Packaged power unit was easily located out of the range area. G.E. co-ordinated manufacture and delivery of nearly all drive equipment for this mill.

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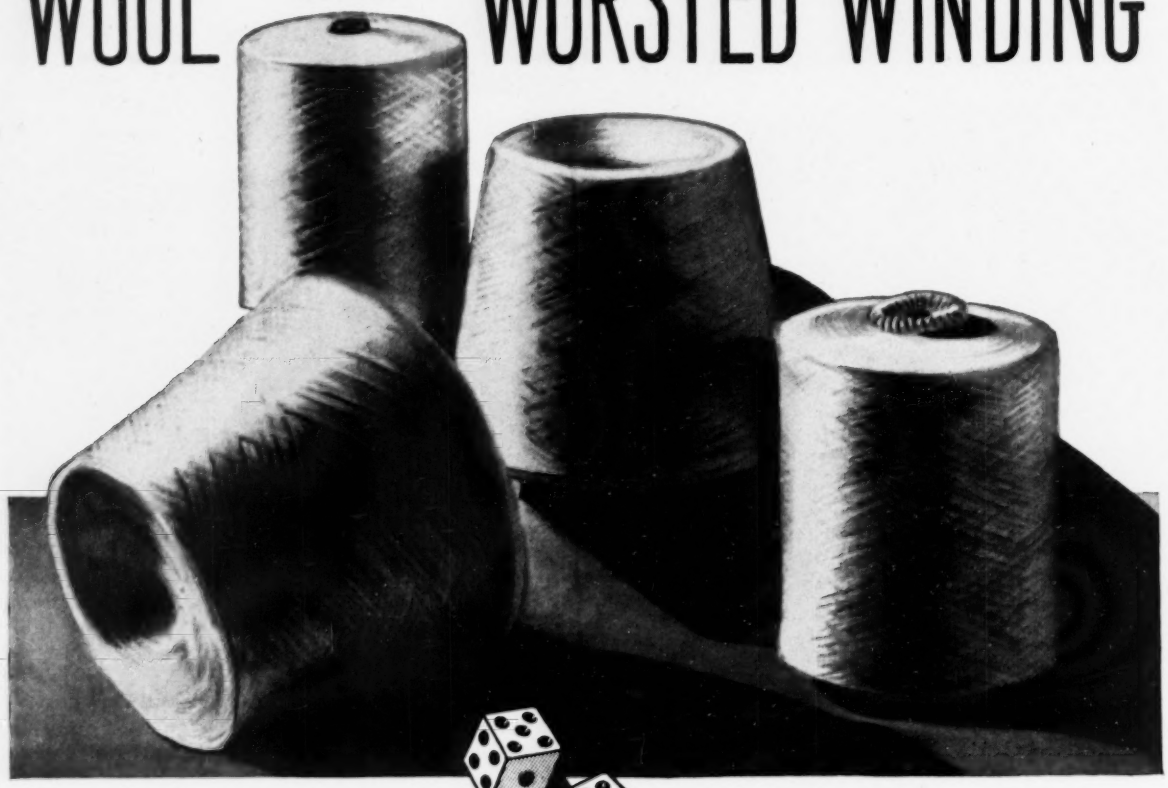

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3. Brackets can be supplied for holding any type cop or bobbin in correct position for maximum winding efficiency.
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5. Winds soft twist or hard twist yarns, any count or type, on warping cones, knitting cones, parallel tubes, dye packages or twister packages — any taper, and 9 angles of wind from 9° to 18°.
6. Several types of self threading tension and slub catching attachments promote quick threading and automatic inspection.
7. Repair costs run as low as $3.50 per year per 100 spindle machine.
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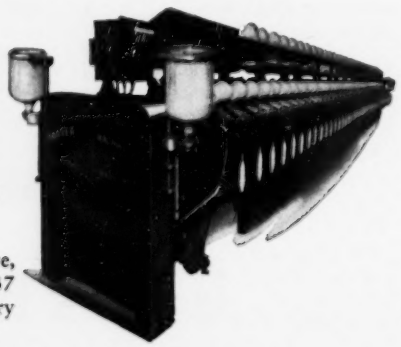

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damage, and the mill had to contend with trash which can be readily removed with modern machinery, instead of having cotton containing less loose trash, but more neps and seed fragments.

Action by Spinners? This seems to be a very important matter from the standpoint of the entire cotton spinning industry. If the ginners in their anxiety to produce commercially clean cotton are delivering artificial grades which are not what their normal classification would indicate them to be, the spinners certainly need to be taking steps to check the cotton that they buy, *and pay for it on the basis of what it is, rather than on what it appears to be.*

There is not much logic in one mill paying two cents a pound premium for cotton that will not make as clean yarn as his neighbor is making with cheaper cotton.

If the ginners are going in the wrong direction with their ideas of excessive cleaning, *only refusal by spinning mills to accept cotton which is gin-damaged can change that direction.* If they are going in the wrong direction, they should be changed as soon as possible for the good of the spinning industry, and also the good of ginners and the farmers who raise the cotton.

New and Revised ASTM Standards Listed

Of the new standards and revisions recently approved by the American Society for Testing Materials, the following are of interest to textile industry personnel:

New Tentatives

Methods of Test for: Tensile Strength of Wool Fiber Bundles (D 1294-53 T); Recovery of Textile Fibers from Creasing, Using the Vertical Strip Apparatus (D 1295-53 T); Maturity of Cotton Fibers (Random Sample-Sodium Hydroxide Swelling Method) (D 1443-53 T); Cross-Sectional Characteristics of Cotton Fibers (D 1444-53 T); Strength of Cotton Fibers (Flat Bundle Method) (D 1445-53 T); Number of Neps in Cotton Fibers (D 1446-53 T).

Revision of Tentatives

Methods of: Testing Cotton Fibers (D 414-52 T); Test for Resistance of Textile Materials to Microorganisms (D 684-45 T); Testing and Tolerances for Rayon Tire Cord (D 885-53 T).

Narrow Fabric Facilitates Heart Operations

An industrial textile is reported to have solved one of the most difficult problems in the artificial heart-lung machine which permits an operation on a bloodless but still beating human heart.

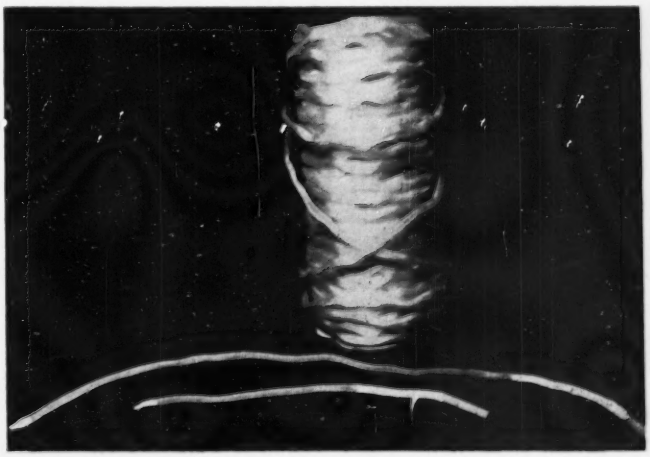
U. S. Government medical researchers have reported to Schlegel Mfg. Co., narrow fabrics manufacturer of Rochester, N. Y., that with a heart-lung machine of proper design "it is not difficult to supply oxygen to the blood, rid it of excess carbon dioxide, and pump a sufficient volume to maintain life, but it is very difficult to obtain a sufficient supply of blood from the body for the machine."

A specially developed, seamless nylon filter tube taps the blood with new efficiency. Not only does this nylon blood filter tube provide an ample supply of blood for the machine, it also uncomplicates the operating area by allowing blood to be drawn from the limbs after a small local incision.

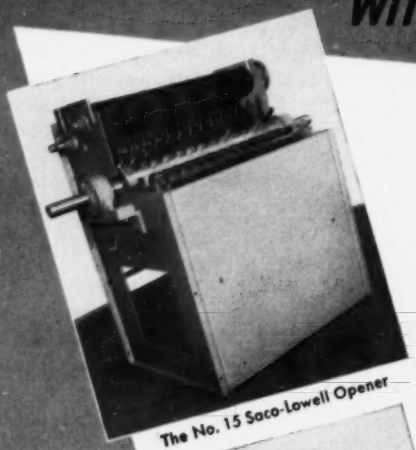
Nashville, Tennessee, medical investigators working at the Veterans Administration hospital with the cooperation of Vanderbilt University, disclosed that before the quarter-inch tubing was used it was necessary to open the big veins near the heart in order to get enough blood, thus crowding the operation area. Suction in smaller veins previously collapsed the veins. Other filters sucked the thin vein walls which clogged the flow.

To overcome these blood supply difficulties, the VA researchers found that "Schlegel's nylon blood filter tubing is ideally suited to withdraw large amounts of blood when slipped inside the veins of the body." It provides thousands of openings per inch that are not just perforations on the surface.

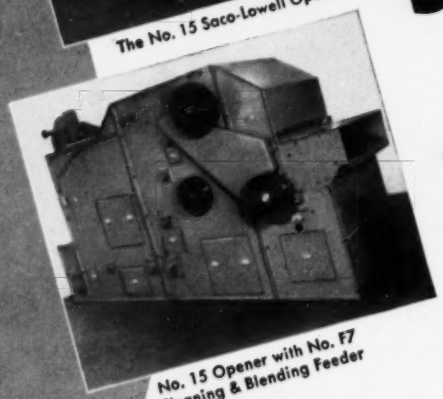
NYLON BLOOD FILTER TUBING is delivered on a reel. Before insertion in the limbs of the patient, one end is sealed and the other is attached to the solid-wall tubing which will carry the recovered blood to the artificial heart-lung machine. The near quarter-inch tubing can be used in varying lengths, the length often controlled by the length of the patient's limbs.



INCREASE THE EFFICIENCY OF YOUR OPENING ROOM WITHOUT EXTRA OPERATING COST



The No. 15 Saco-Lowell Opener



No. 15 Opener with No. F7 Cleaning & Blending Feeder

No. 15 & No. F7 — Illustrating Connecting Pipe & Main Trunk to No. 11 Dust & Waste Extractor

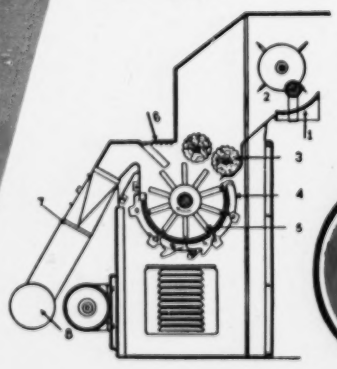
with the NEW SACO-LOWELL No. 15 OPENER

- REMOVES BROKEN LEAVES, STICKS & HEAVY IMPURITIES
- IMPROVES BLENDING
- PRODUCES FLUFFY, COMPLETELY OPENED STOCK BETTER PREPARED FOR PROCESSING BY OTHER OPENING LINE MACHINES

In *actual test* the new Saco-Lowell No. 15 Opener increased the amount of waste extracted by the opening line from 1.245% to 1.560%, an increase of 25.3%. This marked increase during the first cleaning process resulted in the removal of heavy impurities which heretofore were broken up and powdered, thereby making later extraction difficult and costly.

Increased cleaning in the opening line can be attained with the installation of the Saco-Lowell No. 15 Opener.

A *technical bulletin* describing the new Saco-Lowell No. 15 Opener is *available on request.*



1. Steel Bar Cleaning Grid
2. Steel Doffer
3. Wooden Delivery Rolls
4. Adjustable Grid Bars
5. The No. 15 Beater
6. Louvres for Air Intake
7. Connecting Pipe to Main Trunk
8. Main Trunk to No. 11 Dust and Waste Extractor

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The Newer Man-Made Fibers as Appraised by Retailers and Consumers

On the whole, the man-made fibers are meeting with increased consumer acceptance and they are not presenting — in so far as consumers are concerned — any problems that have not been previously encountered with cotton, wool, linen, silk, rayon or acetate.

It should be borne in mind that the only difference that may exist is one of magnitude — as for example, static, crease resistance, speed of drying, and water absorption.

However, problems do exist—and these problems only too often cause folks to assume friendly or antagonistic attitudes and to offer favorable comments or cast unfavorable reflections upon any or all of these wonderful examples of scientific and technical achievement.

Some of the problems are due to:

1. Exaggerated claims in advertising and sales.

2. A desire to obtain a larger share of the market or to make a higher profit by producing an inferior product.

3. Insufficient knowledge on the part of the fiber producer, textile manufacturer, dyer, finisher, garment maker, advertiser, retailer, and the public as to the attributes and the limitations of these man-made fibers.

4. Gullibility of the public.

To highlight the areas in which progress should, and can, be made so that all may enjoy a more pleasureable and profitable existence because of the newer man-made fibers' existence, availability, and contribution to better living, a survey was conducted in which a number of retail buyers handling various lines of merchandise were interviewed. A study of these interviews disclosed contradictions (which were to be expected) as between types, and as between users of these commodities.

Based on information received, it might be inferred

1. That the different man-made fibers are outstanding in

(Continued on page 209)

ITEM	Price Too High	Too Sheer	Decreased Demand	Filling	Increased Demand	Tricot Increased Demand	Off Color	Warmth Questioned	Uncomfortable	REASON FOR ACCEPTANCE: Laundering	Crease Resistance	Pleat Retention	Wearability
Men's Shirts	D-O	N				N	O						
Men's Robes			O										
Men's Hats			N										
Men's Suits				D	D & W O & W								
Men's Sweaters					O								
Men's Hosiery				N	N	N							
Men's Pajamas	O												
Boys' Shirts & Pajamas	O				N		D						
Boys' Hosiery					N								
Women's Budget Coats & Suits	O												
Women's Better Coats								O					
Budget Blouses			N		D				N				
Lower Priced Sportswear				N	O					O	O		
Blouses & Skirts			N		D								
Active Sportswear			N	N	O								
Better Sweaters					D								
Better Blouses					O & W					O & W	O & W	O & W	
Budget Dresses					N				N	O & W	O & W		
House Dresses													
Moderate Priced Dresses	O				O		O						
Uniforms			N							N			N
Girdles & Bras			O		N							N	N
Slips & Gowns					SN-O				N	N	N		N
Women's Knit Underwear		N				N		N		N	N		N
Women's Robes	O		N		N							D-O & W	
Women's Gloves			O		N-O & W-O				N	N-O-O & W			N-O
Girls' Dresses & Skirts			O & W										
Jr. Dresses								N	N	N			
Children's Coats, Hats & Suits													
Infants' Wear								N		N			
Infants' Sweaters			N										
Infants' Blankets	O		DY										

Code: N, Nylon; D, Dacron; W, wool; O, Orlon; SN, spun nylon; DY, Dynel.

From paper by Ephraim Freedman, director of Macy's Bureau of Standards, New York City, before the American Association for Textile Technology, Inc., meeting of Dec. 2, 1953.

Need compact bearings for long service?

here's how leading makers of small gasoline engines get them with NEEDLE BEARINGS

America's best known manufacturers of small gasoline engines specify Torrington Needle Bearings because of their compactness, high capacity and long maintenance-free operation.

Needle Bearings have been *performance-proved* in every type of small two-cycle and four-cycle engine such as those on power mowers, generators, chain saws, materials handling equipment, pumps, compressors and many other types of equipment.

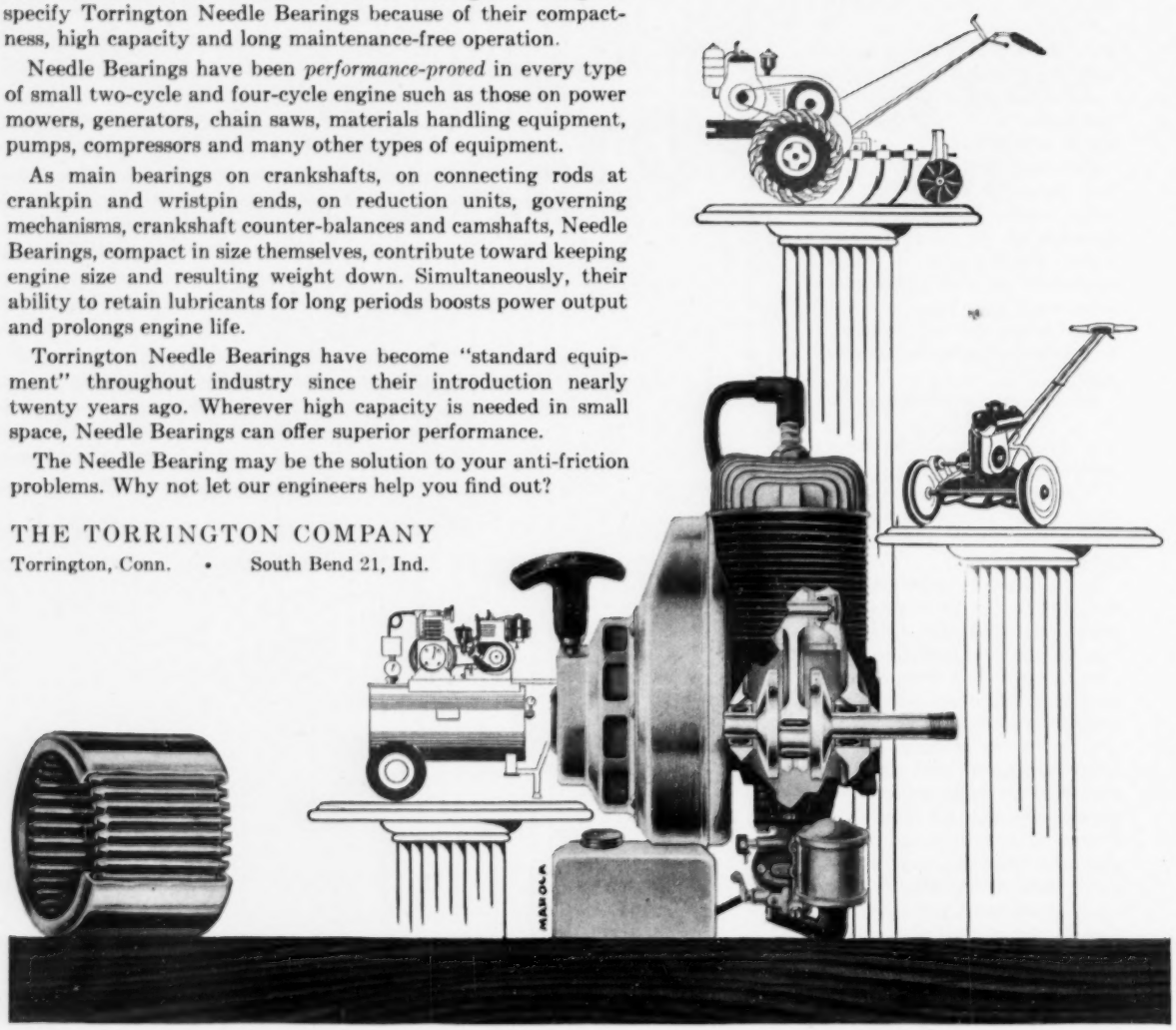
As main bearings on crankshafts, on connecting rods at crankpin and wristpin ends, on reduction units, governing mechanisms, crankshaft counter-balances and camshafts, Needle Bearings, compact in size themselves, contribute toward keeping engine size and resulting weight down. Simultaneously, their ability to retain lubricants for long periods boosts power output and prolongs engine life.

Torrington Needle Bearings have become "standard equipment" throughout industry since their introduction nearly twenty years ago. Wherever high capacity is needed in small space, Needle Bearings can offer superior performance.

The Needle Bearing may be the solution to your anti-friction problems. Why not let our engineers help you find out?

THE TORRINGTON COMPANY

Torrington, Conn. • South Bend 21, Ind.



TORRINGTON *NEEDLE* BEARINGS

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Trade-marks of leading manufacturers of small gasoline engines who use Needle Bearings.

the state of the Rackets

By Ringgold Arden

EXCLUSIVE

THE PEOPLE who run our giant labor monopolies have clamored mightily against the imaginary iniquities of the Taft-Hartley Law, which they refer to as "The Slave Labor Law." This law was a mild attempt to eliminate or to control some of the features of labor unionism which make working men virtually the slaves of the rackets which claim jurisdiction over their kind of employment.

The big labor racketeers moan that the Taft-Hartley Law is unreasonably weakening their unions, and they are making a tremendous effort to have the law so amended that they can extend their monopolies and expand powers which are already much too great.

Let's take a look at the state of the rackets as reported in the public press during the past year:

WATERFRONT SEETHES IN UNION POWER RIFT

NEW YORK—(AP)—The over-turbulent New York waterfront, harboring a multi-billion-dollar industry and a multitude of rackets, today seethes with even greater unrest as rival unions vie for power amid a dock strike threat to all Atlantic coast ports.

The picture is fluid and highly volatile. At stake are billions of dollars in business involving industries throughout the nation and the ultimate welfare of the dock workers themselves.

For at least a quarter of a century the miles of New York-New Jersey docks, making up the world's largest port, has been the setting for petty and grand thievery and corruption, chronic violence and even murder.

K. C. STRIKE PROBE URGED

WASHINGTON—(UP)—A special House subcommittee Tuesday called for a Federal Grand Jury investigation of labor violence which idled the entire Kansas City construction industry for two months this summer.

The three-man subcommittee, headed by Rep. Wint Smith (Rep., Kans.) said the AFL Teamsters Union headed in Kansas City by Orville L. Ring, was the "root of the trouble" and the labor strife blocked some Korean War production.

On the basis of hearings it held in Kansas City the subcommittee called the situation "one of the most forbidding chapters in the history of American unions."

The report said officials of the AFL electricians, laborers and carpenters unions complained that the teamsters were trying to take control of the building industry.

"Violence has become the adjuster of these jurisdictional claims," the subcommittee reported. "All orderly processes have been rejected, and force has replaced reason in the industry."

CABLES ARE CUT IN PHONE STRIKE

More State Troops Readied in Disorder

INDIANAPOLIS—(AP)—Sporadic cable cutting and rock throwing incidents in the CIO-Communication Workers' statewide strike against the Indiana Bell Telephone Company were reported Tuesday and Gov. George N. Craig ordered state troopers to stand by in five more cities.

AUGUSTA BUSES TARGET OF DYNAMITE, GUNFIRE

AUGUSTA—A bus was dynamited and two buses were fired upon late Wednesday as violence flared again in the seething three-month-old Augusta bus strike, police here reported.

60-DAY BUS STRIKE RUNS INTO LEGAL SNARE

OAKLAND, Calif.—(AP)—The nation's longest public transportation strike, tying up 11 cities with more than 75,000 persons, today ran smack into the tough legal question of just how far can government go in making a utility give service.

Can the utility's officers be put in jail and the property forced into receivership?

Such possibilities were implied in a court order against the Key system whose transit lines have been closed for 60 days by a strike of AFL carmen.

On the other hand, if the only way the company can resume service lies in giving the union more money, would not any court order be unconstitutional and confiscatory? Key attorneys raised that point.

Key's buses serve 100,000 riders daily in Oakland, in Berkeley—site of the University of California—and in nine other cities of the East Bay across from San Francisco Bay Bridge, carrying 27,000 commuters daily.

FIGHTS FLARE AS STRIKE TIES 10 IHC PLANTS

CHICAGO—(INS)—Twenty-five thousand International Harvester Company workers went on strike today in Illinois, Indiana and Kentucky plants and

Now . . .

A SPECIAL DOUBLE VALUE . . .

How would you like to have in your organization an expert on all phases of textile operations whose salary was less than $2.00 a year? Impossible? No it isn't. For by putting TEXTILE INDUSTRIES on your payroll at precisely that "Salary" you will receive the benefits of textile experts in every branch of the industry.

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This exclusive manual, consisting of 185 full-size pages, has been most thoroughly planned to put into your hands a wealth of material not available in one volume from any other source *at any price*. Here, recognized authorities in every branch of the industry join to aid you in all the most important phases of wet processing.

As a "Package" offer—we will enter or renew your subscription to TEXTILE INDUSTRIES—*the* magazine of the textile industry—for 36 full issues; and, in addition, will send you the new "Dyeing, Bleaching and Finishing Manual" for only $5.00.

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violence broke out at two of the 10 factories affected.

The walkout began at 12:01 a.m. (CDT) after negotiations for a new contract broke down despite settlement efforts by the Federal Mediation Service. The old contract with the independent farm equipment workers expired at midnight.

A fight in which baseball bats were reported used occurred at the plant in Louisville when nonstrikers attempted to cross picket lines.

STRIKE AT GE JET ENGINE PLANT ENDS

CINCINNATI, Ohio—(UP)—A 65-day-old strike at the General Electric Evendale plant, largest manufacturer of jet engines in the nation, ended today with the acceptance of a company settlement proposal by two unions.

In simultaneous membership meetings today, 1,100 AFL machinists voted 8-1 to accept the proposal. Some 4,500 CIO United Auto Workers accepted the terms shortly afterward by a nearly unanimous vote.

Terms of the proposal called for a 6 to 8-cent hourly increase, improved seniority and grievance provisions and "some adjustments" in classification. The wage increase was the same offered by the company before the unions went on strike.

Agreement between company and union spokesmen was reached in meetings earlier in the week with a panel of federal mediators.

These are just sample newspaper stories culled at random, and hundreds of others like them could just as easily have been quoted. What is the purpose of all of this riotous and unreasonable behavior on the part of labor organizations?

It certainly could not be intended to benefit the participants in most of these strikes.

In the case of the strike at the G-E jet engine plant, workmen were out of employment approximately 47 working days, and assuming that they worked straight time, and earned an average of $1.75 an hour, they lost $658 each by this strike, which was finally settled on exactly the terms that the company had offered before the strike. Certainly, losing $658 out of a year's wages is no great gain for these working people, and if their strike had succeeded in winning twice what the company offered them, it would have taken more than five and one-half years for them to break even on the strike, and long before that time was up their leaders would have led them into other strikes, to lose them more money, and get them still further behind.

The strike of the bus drivers in Oakland, California, followed practically the same pattern. At the time the quoted news story was published, this strike had been on 60 days and the wages lost would have been about the same as those lost in the case of the General Electric employees just discussed.

Strikes against the International Harvester Company seem to be a chronic and annual affair, like the John L. Lewis coal strike. IHC employees must be so far behind on these strikes that they will never catch up.

Another newspaper quotation may be in order:

UNIONS HOOT AT CHAMBER WAGE STORY

WASHINGTON—(AP)—Labor organizations scoffed today at a contention by a U. S. Chamber economist that the unions seem to have little to do with the amount of wages paid workers.

"Baloney," said the CIO News.

"Yes, dear wage earners of America, there is a Santa Claus," said the AFL's weekly News-Reporter in a hooting article.

Dr. Emerson P. Schmidt, the Chamber economic research director, set out his views in a Chamber publication last Monday. He said government statistics show the percentage of national income going to compensate employees was practically the same in 1952 as in 1936.

Schmidt also said "a competitive free market economy automatically passes into the hands of the workers the gains of rising productivity."

The CIO News said: "Dr. Schmidt knows better and so does every businessman." It added: "Even if the proportion of labor's share of the national income has not changed, labor's share would have gone down if unions hadn't been out scrapping for wage increases."

This is exactly in line with conclusions that we have aired in this magazine several times before, when we have pointed out that all that the working population can have is based on what it produces, and that when one segment of the population organizes itself into strangling monopolies which can extort from the other segments; some benefit, of course, at the expense of others, but there is no benefit for the whole. Considering the employed people of the United States as a whole, they can only divide up what has been produced, and any increase in the national standard of living is due to increases brought about by improved manufacturing and distributing methods. And labor unions with their constant interruptions to production, and their constant insistence on raising prices so that their members may benefit at the expense of the rest of the public, have hindered rather than helped the economic cause of the working man.

Sane people, free to follow the dictates of their own judgment, who realize that their wages are already above the average of wages for other working people, could not be expected to lose $600 out of a year's wages fighting for a possible gain which would just leave them even with the board after working for four or five years. These people must be under tremendous coercive pressure to indulge in any such idiotic performance as is constantly indulged in by the members of unions embraced in the big labor monopolies.

If the working people are not going to gain anything by these constant disorders and staggering economic losses, then who does gain? Is it not the racketeer whose welfare is based, not upon the welfare of those whose interests he hypocritically pretends to represent, but upon the strength of the stranglehold he can maintain upon these working people whose activities he can direct to *his* advantage, regardless of *theirs*?

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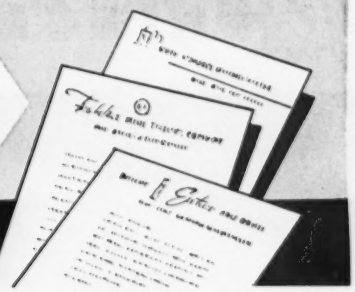
Corn, wheat and other grain products for industry since 1898

3-2

HOW OTHER MEN MANAGE

• Letters to Editor • Technical Discussion •
• Manufacturing Briefs • Kinks & Short Cuts • Comments from Readers •



Write to the Editors!

Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.

Address: Editor "Textile Industries," 806 Peachtree St., N. E., Atlanta, Ga.

Review of Chance Factor and Degree of Perfection

EDITOR TEXTILE INDUSTRIES:

Upon re-reading the June, 1953, issue of TEXTILE INDUSTRIES we were particularly pleased with N. L. Enrick's article entitled "Formula for Yarn Evenness Accounts for Chance Factor." Here, we thought, was a really useful test which would enable the management to put its finger on trouble spots quickly. We have, however, had too much practical experience not to question spontaneous ideas which appear to promise so much.

First, we wondered where the Micronaire readings would have to be taken in order to give a reliable estimate of the variation due to the chance element. In most mills the cotton in the spinning frame will not be the same as the stock in the blending room. It would be necessary, therefore, to take a number of Micronaire readings from the creel of the spinning frame with the lengthy and tedious job of dissecting the roving.

The objection to using routine Micronaire readings would be irrelevant if blendings by fineness as at Joanna Cotton Mills were adopted. Some difference could be tolerated without causing too much error because of the use of square root of the micrograms per inch.

Example: Suppose the Micronaire reading in the blending room was 4.0 while the stock in the spinning frame has a fineness of 3.6 microns, a difference of 10%. This will only make 3.16% error in the estimate of the coefficient of variation due to natural variation; viz, instead of 7% in Enrick's article, only 6.8%.

Second, we were more than a little concerned because the article did not point out that the "degree of perfection" figure would cover spinnability of the stock as well as the technical efficiency of the machines. We were left to assume from the text that the "degree of perfection" was concerned only with the technical efficiency of the processing. It is, of course, common knowledge how many factors control spinnability and thus, yarn evenness.

In the same issue of TEXTILE INDUSTRIES, T. L. W. Bailey emphasizes the importance of the different fiber characteristics upon spinnability in the article on "Doughnut Cotton Fibers." Thus, the degree of perfection figure alone cannot be an accurate measure of the effectiveness of machine settings, speeds, adjustments, etc. The variables covered by this figure, to name a few, would include fiber length, variability of fiber length, maturity, moisture content, and fiber strength.

NEW KINK CONTEST!

$100 will be awarded the winner.

Send your entry now! This contest ends March 15, 1954.

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

► All contributions must be postmarked not later than midnight, March 15, 1954.

► No limit to the number of entries an individual may submit in any one contest.

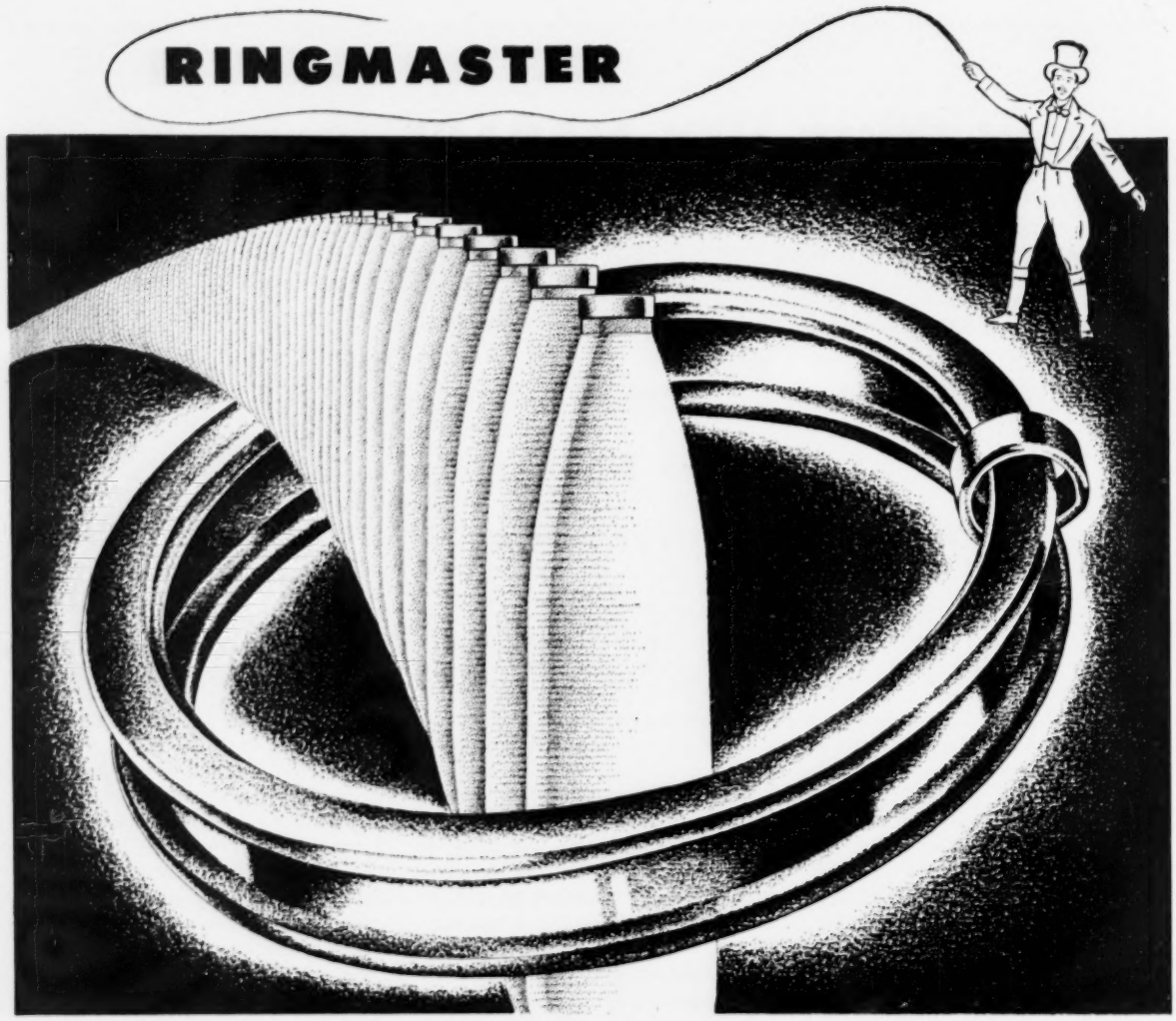
► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously.

Send your contest entry to:

Editor TEXTILE INDUSTRIES,
806 Peachtree St., N. E., Atlanta 5, Georgia.

RINGMASTER



. . . of more than 12,000,000 smooth-running spindles!

TODAY, Victor Travelers ride the rings on more than 12,000,000 spindles, after 50 years of steadily increasing preference among the nation's ablest millmen. The reasons are clear.

First, consider cost. Since the true measure of a traveler's worth is in the number of pounds of yarn it spins or twists in its lifetime, millmen prefer those that *cost the least per traveler-pound.*

Victor Travelers consistently deliver more pounds of top-quality yarn — under the toughest conditions — at the lowest possible cost per traveler-pound.

Second, consider design. Whether a mill runs conventional fibers, synthetics, or blends, there is always one traveler that is *right* for the work being processed. Victor service saves you valuable time in selecting that *right* traveler — in setting up the smooth-running spinning or twisting desired.

You'll find that a mill-trained Victor Service Engineer has the ability to analyze problems quick ly — to recommend the *right* traveler. Also, whatever its description, you can be sure its available among the more than 15,000 Victor styles and sizes.

One more reason . . . Victor service is prompt as well as dependable. Try it. Just phone, wire, or write the nearest Victor office.

Keep a Step ahead with

VICTOR Ring Travelers

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Third, we checked the mathematics. It occurred to us at this point that considerable doubt existed as to whether the method of calculating the "degree of perfection" was entirely satisfactory. It would be, if the coefficient of variation due to natural variation of the fibers per cross section and the coefficient of variation due to processing could be added together. But, is this the correct way? Is it not more reasonable to assume that the root mean square of the two coefficients would give the coefficient of variation of the yarn? This, surely, is the basis of the statistics concerned.

When two independent factors affect distribution, the resultant coefficient of variation is the square root of the sum of the squares of the respective coefficients and not just their arithmetic sum.

Let A = Coefficient of variation due to the chance variation in the number of fibers per cross section.

Let B = Coefficient of variation due to processing imperfections.

Yarn evenness coefficient of variation = $\sqrt{A^2 + B^2}$

Consider the example given in Enrick's article:

Micronaire reading 4.0, Counts 18s

Yarn evenness coefficient of variation, 16.2

Coefficient of variation due to processing = $\sqrt{16.2^2 - 7.0^2} = 14.6$

Let us look at the problem from another angle and assume degree of perfection to be a measure of the technical efficiency of the processing. In this instance, it is reasonable to expect, if processing different types of stock, that we would get the same figure for degree of perfection. Let us check this and spin some other stock of equal spinnability, with the same technical efficiency as our previous example. The new cotton stock has a Micronaire reading of 6.3, and 18s yarn is spun from it.

Thus, the coefficient of variation due to fibers = $0.82 \sqrt{18 \times 6.3}$ = 8.7%

Therefore, the yarn coefficient would be $\sqrt{8.7^2 + 14.6^2}$ = 17%

From these figures degree of perfection as given by Enrick can be calculated. They should give us the same figures. In the case under consideration:

$$\text{Degree of perfection} = \frac{8.7 \times 100}{16.6}$$

= 51%

The example given by N. L. Enrick's article is shown:

$$\text{Degree of perfection} = \frac{7.0 \times 100}{16.2}$$

= 43%

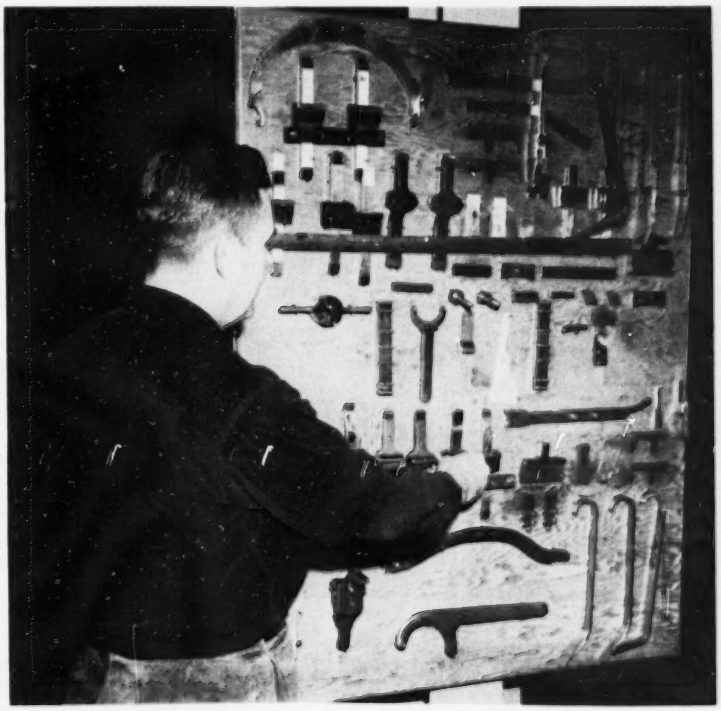
Thus, we get the two figures 43

Board Keeps Visible Inventory of Full-Fashioned Tools

One full-fashioned hosiery mill has solved the problem of keeping track of tools and gauges. This mill has simply attached a large piece of plywood to a post located near the machines, and the tools and gauges are arranged neatly on the board for easy and quick selection of the tool or gauge desired.

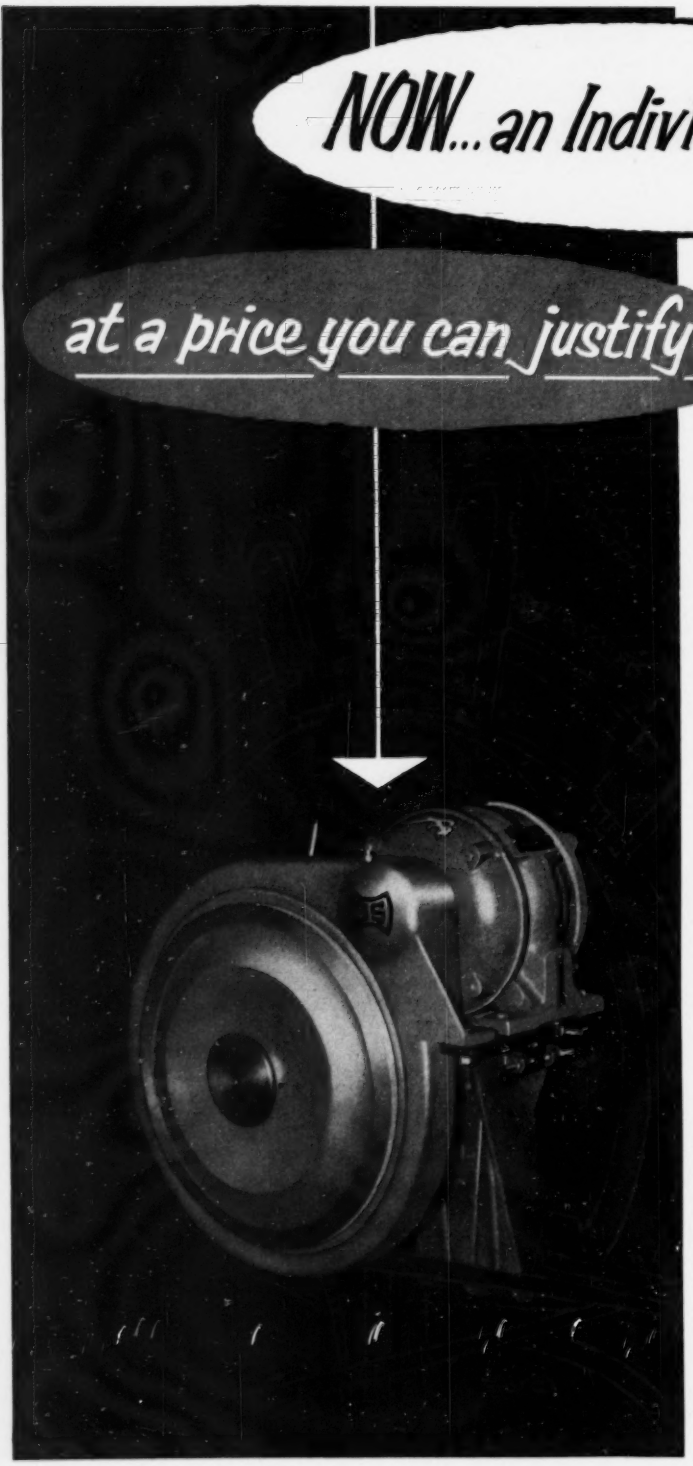
Each tool is outlined on the board so that when it has been removed or is in use, another person can easily identify the missing tool instead of looking through a mass of tools and gauges in a tool box to find it. An empty tool berth on the board also serves to remind mechanics that the tool should be replaced on the board when it is not in use so other mechanics can have access to the entire set.

This tool board helps prevent misplaced and lost tools and saves time by providing a visible and easily accessible inventory of tools at all times.



NOW... an Individual Card Drive

at a price you can justify



Here is a new individual card drive.
Not only is the first investment for this drive low, but its simple time-tested principle assures little, if any, maintenance cost.

THIS DRIVE MAINTAINS STANDARD CARD OPERATING PROCEDURE AND PRESENT METHOD OF STRIPPING, eliminating cost of separate stripping devices and dangers inherent in training personnel in new methods. The operation, in addition to being easier and more quickly executed, is safer than ever before.

MILLS EQUIPPED WITH THIS DRIVE CAN STANDARDIZE CARD PRODUCTION since the slippage associated with any type of belt drive has been eliminated. It embodies the advantages of direct drives plus the slip-clutch safety to prevent possible damage from chokes.

AS A PACKAGED UNIT, this drive is easily and quickly installed. It is fitted with a rigid mounting direct to the card frame with no complicated reduction unit or overhung load on the cylinder shaft. Occupying approximately the same space as existing flat belt drives, this drive leaves the flats clear and eliminates the danger of springing arches or damage to flats due to vibration.

Now you can reduce the production loss of group shut-downs and eliminate the accidents and costly maintenance associated with belts and line shafts.

If you haven't seen this drive, contact your nearest Southern States representative or write today for Bulletin No. 200.

All the parts necessary for continuous stripper drive can be supplied at moderate extra cost.

Southern States Equipment Corp.
HAMPTON GEORGIA

and 51 to represent processing efficiency, when in fact there is no real difference.

As another example, let us examine two yarns A and B spun from the same stock with a Micronaire reading of 4.0.

Yarn A 10s counts, coefficient of variation 10.39%

Yarn B 16s counts, coefficient of variation 11.90%

Let us ascertain, according to Enrick, which of these yarns was processed most effectively.

Yarn A: Variation due to chance $= 0.82 \sqrt{10 \times 4} = 5.186\%$

$$\text{Degree of perfection} = \frac{5.186 \times 100}{10.39} = 50\%$$

Yarn B: Variation due to chance $= 0.82 \sqrt{16 \times 4} = 6.56\%$

$$\text{Degree of perfection} = \frac{6.56 \times 100}{11.9} = 55\%$$

If we accepted the degree of perfection to be a true measure of processing efficiency, then we should say yarn B is better processed than yarn A. Would we be justified, however, in informing the management that B is better processed from an evenness point of view than A?

If we find the actual coefficient of variation due to processing by the method previously described for each of the yarns we find the opposite to be true.

Yarn A: Variation due to processing $\sqrt{10.99^2 - 5.186^2} = 9\%$

Yarn B: Variation due to processing $\sqrt{11.99^2 - 6.56^2} = 10\%$

Should the idea as put forward be put into practice, the figures derived to represent "Degree of Perfection" would "jump all over the place" for no apparent reason. A considerable amount of real harm could be done to stock by overseers, second hands, and fixers in frantic efforts to readjust machines from figures which bear little relation to fact.

N. H. POMFRET; S. MITMINGER
(Canada)

Card Settings for Long Staple Waste

EDITOR TEXTILE INDUSTRIES:

We should be much obliged if you could give us any technical advice on the following:

We are interested in carding cylinder, doffer, and flat strips of 1 1/16" American cotton on revolving flat cards. What clothing and what speed and settings are advisable? Is it advisable to use a fancy?

CONTRIBUTOR No. 8639
(Foreign)

EDITOR TEXTILE INDUSTRIES:

Among the questions brought up by your contributor regarding carding cylinder, doffer, and flat strips of 1 1/16" American cotton on revolving flat cards, we note that your correspondent mentions the use of a fancy roll. We definitely would not recommend a fancy roll on this card processing this type of stock.

As a matter of fact the fancy roll is about to go out of existence due to the use of the continuous card stripper, which does a much better job and produces a much smoother card sliver.

I was in a mill last week which is running 100% card strips including cylinder, doffer, and flats. All of the cards were equipped with continuous strippers, and a representative of the mill told me the mill could not operate without them and still make the grade of yarn it is producing.

The cards should be set up somewhat as follows:

Cylinder Speed—165 rpm
Doffer Speed—11 rpm
Pounds per hour—14.4
Weight Sliver—60 grains
Licker-in Speed—425 rpm
Cylinder Wire—No. 90
Doffer & Flat Wire—No. 100
(Do not recommend metallic wire)

Settings depend somewhat upon the condition of the cards as a rule.

Various settings are set forth for reference in the machinery manufacturer's catalog.

CONTRIBUTOR No. 8620

More Praise for Flexible Flat Fillet for Cards

EDITOR TEXTILE INDUSTRIES:

We noted the comments of CONTRIBUTOR No. 8578 in the June, 1953, issue of TEXTILE INDUSTRIES. We also noted the article by Herbert L. Werner in the January, 1953, issue regarding a flexible flat fillet for cards. This patented flexible fillet has two rows of wire teeth and has numerous practical advantages which have been proved in more than two years of use in cotton carding in France.

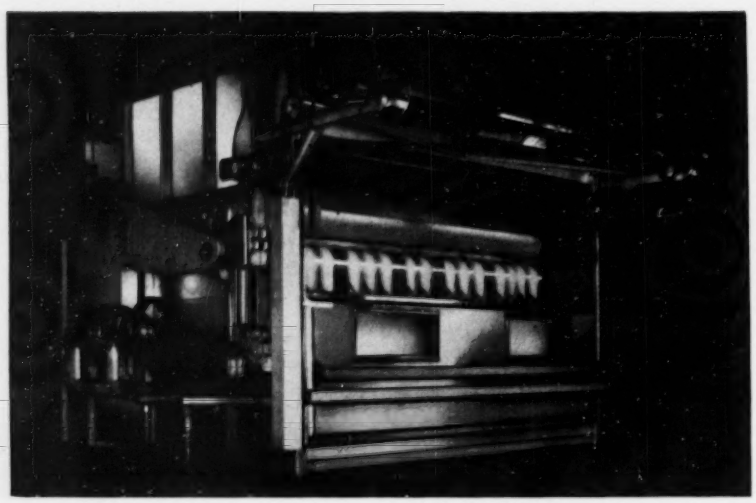
This fillet doubles the number of carding points, allows a more open setting (to .024"), suppresses the danger of rubbing card clothing, and makes the interval between grinding operations 9 to 10 times longer. Also, the fibers are treated gently because carding is done on two contact points. An excellent web is presented with notable absence of neps, and there are less long fibers in the stripping waste.

The space between the two rows of carding points allows the neps and dead fibers to lodge easily and remain until the card is stripped. The fillet works as well on cylinders with metallic clothing as on cylinders with flexible fillet clothing. Flats fitted with this fillet can move toward the feed end of the card as well as toward the doffer.

CONTRIBUTOR No. 8638
(France)

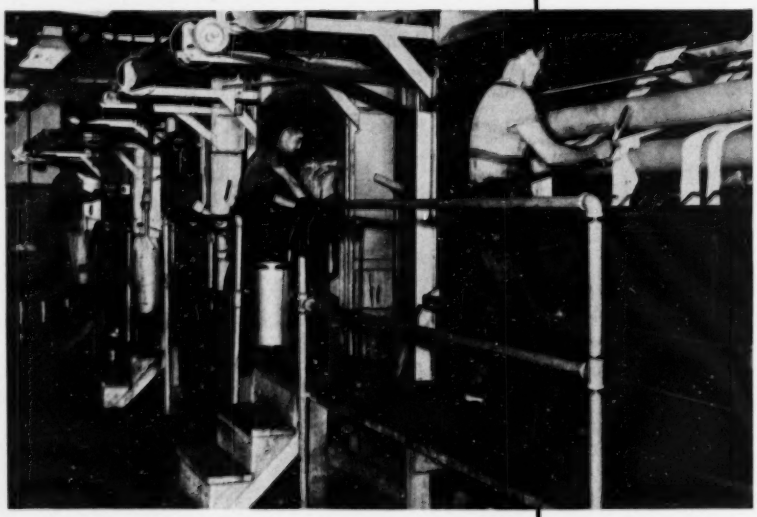
The Fleet Line

Dye & Bleach Kettle : All Stainless Steel
FOR COTTON KNITS

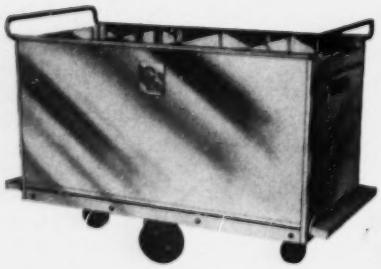


FEATURES

- ✓ All Stainless Steel
- ✓ Triangular Folding Reels
- ✓ Rubber Squeeze Rolls
- ✓ Pneumatic or Spring Top-Roll Pressure
- ✓ Liquor-Level Controls
- ✓ Individual Motor Drives
- ✓ Electric Knock-Off
- ✓ Exhaust Control
- ✓ Full Enclosures
- ✓ Down-Sliding Doors



One of Many Mill Installations Producing Knit Goods for the Industry.



An all S. S. Truck to service these machines. Suitable for turntable use in removing twist from fabrics.

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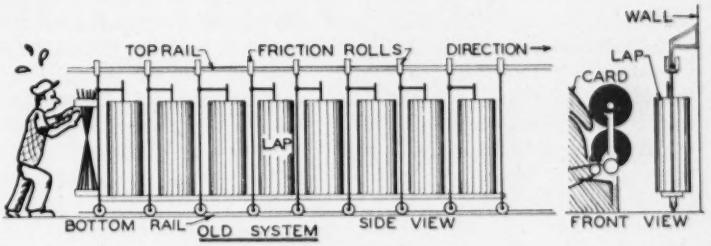
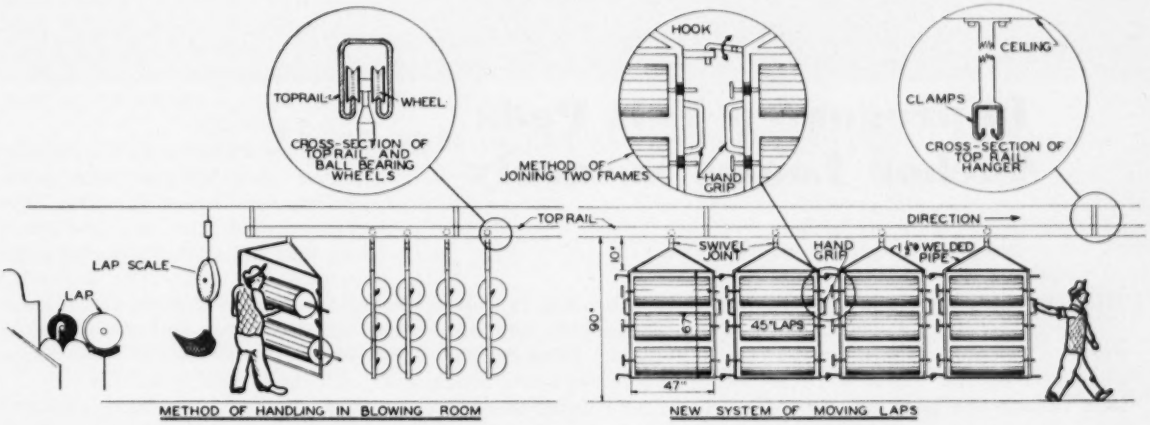
Harold A. Zayotti, Jr., P. O. Box 125, Riverton, N. J. • H. E. Mott Co. Limited, Brantford, Ontario, Canada

Lap Transport System to Cards

THE ACCOMPANYING sketches from a European source show an arrangement for transporting laps from the picker room to the card room of a cotton spinning mill. The most popular lap handling system in Europe is shown in the first illustration. The sketches are self-explanatory.

The automatic system which is useful and popular in the U. S. A. is said not to be so handy for European spinners because they have many times the number of different grades and qualities of cotton to consider.





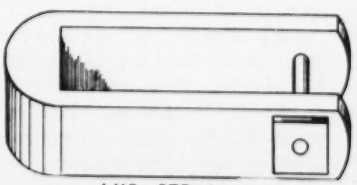
Kink Saves Loom Picker Sticks and Lug Straps

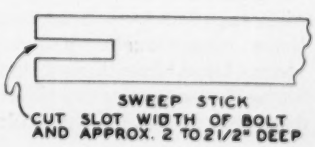
EDITOR TEXTILE INDUSTRIES:

We eliminated a lot of trouble with broken picker sticks by adopting an idea as follows: On the end of the sweepstick (see sketch) at the location of the lug strap, instead of drilling a hole for the lug strap bolt, cut a slot out to the end of the sweepstick and assemble the lug strap in the usual manner.

First make sure there is a good square lug strap washer on both sides of lug strap and a good bolt with a lockwasher on it. The pick on the loom should be set according to good loom fixing standards. Make certain the bolt is as tight as possible without stripping the threads.

If drop boxes should hang up for any reason, or if a bobbin should get caught between picker stick and lay on automatic or transfer end of loom, instead of breaking the picker stick, lug strap, or possibly the shuttle box, the lug strap will slip out of the





sweepstick and no harm will have been done. If the lug strap has been set up properly it will not slip out (and I say this from experience) unless something goes wrong with the loom. If for any reason the lug strap keeps slipping out of the sweepstick, there is something wrong with the loom which should be repaired.

Also check the loom to see if the binders are not too tight. Excessive binder pressure will cause the box to hang-up. Check the packing behind the picker or the shuttle will go in the box too far and will be trapped on the outside box guide. The result will be a box hang-up.

When reversible pickers are used on looms equipped with a picker stick bunter, sufficient packing must be used on the picker spindle to prevent overrunning of the picker. If the picker is allowed to contact the back of the picker stick under the force of the pick, both the life of the picker and the life of the picker stick will be reduced. Do not let the hole in the picker get too deep or the box may hang-up. It is a much better practice to change the picker before the hole is too deep to avoid a box hang-up.

CONTRIBUTOR No. 8630

Impregnated Felt Pads Anchor Looms Securely

By T. Hargreaves

THIRTY years ago in a mill in Bombay, India, 1200 looms were to be repositioned in the weave room. The looms were of 1892 vintage and were still weaving extraordinarily well. The looms were so well fastened to the stone floor that it was difficult to free them so they could be moved.

Accumulation of dirt around the loom feet obscured the method used to anchor the looms; however after much scraping it was discovered that a pad of some description lay under each foot. No bolts were used to secure the equipment to the floor. It was evident that some sort of adhesive substance must be in the pads for they held securely to the loom feet and the floor. Levers were used to force a loom off the mountings, and the pads were removed and examined.

The pads were made of felt, but the type of adhesive substance could not be determined. In the mill was a Hindoo who had worked there continuously for over 40 years. Upon questioning him we found that a former manager, now deceased, had used the pads and adhesive substance to anchor the looms. Fortunately his son, who was living in Bombay, had preserved his father's note books, and in those note books was the original formula that had served so well for many years.

The formula:

"Cut soft felt pads to the size of the loom feet but allow about ¾" extra width of felt on all four sides. The pads should be soft but well felted about ⅝" thick. Boil a mixture of ⅓ resin, ⅓ liquid tar, ⅓ solid tar (asphalt) in a deep drum. Do not fill the drum more than ⅓ full or, when boiling, the mixture will overflow onto the fire. Boil outside in a safe place.

"1. Line the looms to be anchored in their correct positions.

"2. Bring the drum of hot mixture near to the looms.

"3. Throw into the hot mixture several of the felt pads.

"4. Gently lever the two feet at one end of the loom to a height of about 3" to 4".

"5. By means of blacksmith's tongs lift the pads out of the hot mixture and slide one under each of the two loom feet, and gently lower the loom.

"6. Now raise the other two loom feet and put pads under them, and again gently lower the feet onto the pads.

"7. Examine the line of the loom, and if the position has been disturbed, force the loom into line by levers. All positioning operations must be done before the mixture sets, which it does in a very few minutes."

Three men working as a team can anchor about 100 looms per shift. The operation requires approximately five minutes per loom. If the floor is not perfectly level, but reasonably level, the weight of the loom will force more or less of the mixture out of each pad so that the loom remains level, and the true level of the machine can be proved by using a spirit level. If necessary the loom may be put into operation within one half hour after being anchored by the foregoing method.

Looms anchored by the impregnated pads seldom come loose. Looms complete with warps have been moved from one position to another and started weaving again within one hour. The anchoring pads absorb vibration, do not damage floors, may be installed quickly, the materials are inexpensive, and the system is reliable.

Equipment has been anchored on stone, concrete, wood, and tile floors with success. Plain looms, box looms, dobby looms, terry looms, Jacquard looms, winding machines, warping machines, slashers, sewing machines, and shoemaking machines have all been anchored successfully by this method.

A footnote to the original formula stated: "When the mixture is boiled and thoroughly mixed, plunge the end of a stick of wood into it, then dip this end into a pail of cold water. Remove the mixture from the end of the stick and work it between the finger tips. If it is brittle and snaps, add a little more liquid tar to soften the mixture. If the mixture is soft and sticky add a little more resin to stiffen it. Several thousand looms have been anchored by impregnated pads without a failure in all kinds of climates. The mixture can be re-heated for later use if any is left over."

Tips on Card Grinding

1. Cut out feed. Run card until thoroughly free of stock.

2. Stop card. Strip with stripping roll.

3. Clean card all over. Remove all waste under card, front to back. Clean out between frame sides at cylinder and doffer. Check alignment and level of card and make necessary corrections.

4. Clean flats thoroughly, using roller covered with special flat cleaning fillet designed for this purpose. Straighten up bruised or damaged wire.

5. Inspect cylinder fillet and doffer fillet for bruises or other visible damage. Scrape up all bruised or jammed wire. Should fillets be loose or blistered (raised—wire shot back—bucked), call for overseer.

6. Back off doffer, flats, and licker-in to insure against damage while cylinder, doffer, and flats are being ground. Cylinder runs in opposite direction when grinding; should bearings be worn, doffer will get into cylinder, and cylinder into licker-in, resulting in ruined card clothing.

7. Remove doffer gear. Clean thoroughly. Inspect teeth, bore in gear, set screws, and key. Make any necessary repairs or replacements.

8. Check grinding stands. Adjust for proper grinding. Be sure all stands are tightly bolted to card frame.

9. Place traverse grinders in stands and set to cylinder and doffer. Let grind about 30 minutes, reset to get about six sparks for 3″ width wheel, and let grind out, usually about seven hours. Oil grinder screw and bushings. Check during grinding period.

10. The cylinder speed is usually 165 rpm for both production and grinding. Doffer grinding speed 275 rpm. Traverse grinder speed on both cylinders and doffers 700 rpm. All grinders must be in good condition to prevent damage to card clothing. Emery fillet on traverse grinders should be changed after 6 cards are ground.

11. The drum grinder should be set to .005″ on first contact, drum to flats. Speed 750 rpm. Let grind 30 minutes and make necessary adjustments. Should spark very little, if any. Grinding time seven hours. Oil bushings and check during grinding. Emery fillet on flat drum grinder should be changed after 20 cards have been ground.

12. Much damage will be done to flat wire by: poor setting of drum to flats; using oily or worn emery fillet; grinding stands out of line; worn shoe on grinder cradle or grinding former; cradle not locked into position.

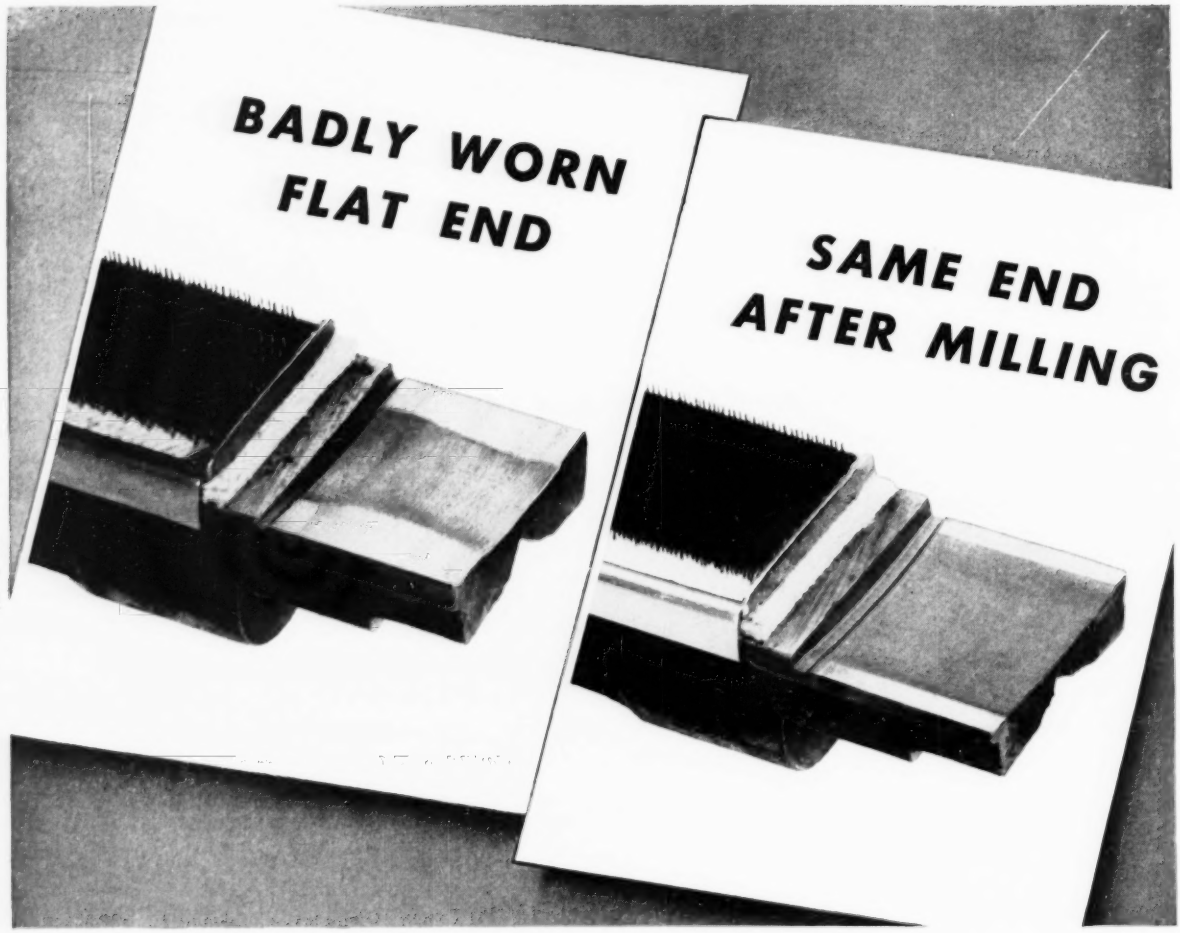
13. One of the many duties of a card grinder is a constant check on cards being ground. Ropes and belts break occasionally, and unless promptly repaired or replaced, will shorten grinding time and damage fillets.

14. The head grinder or overseer should check card after settings are made, and before card is put into production. A second check should be made after card is put into production, for evidence of facing and for quality of work produced.

Tests run in mills have definitely proved the advantages of grinding cylinder, doffer, and flats each grinding cycle. It follows that card should be re-set all over after each grinding. The tips offered are in line with this procedure.

Reprints of these tips will be furnished on request, free of charge, to Ashworth Bros., Inc., Fall River, Mass.

MORE ON NEXT PAGE ➔



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American Card Clothing Co. (Woolen Division)

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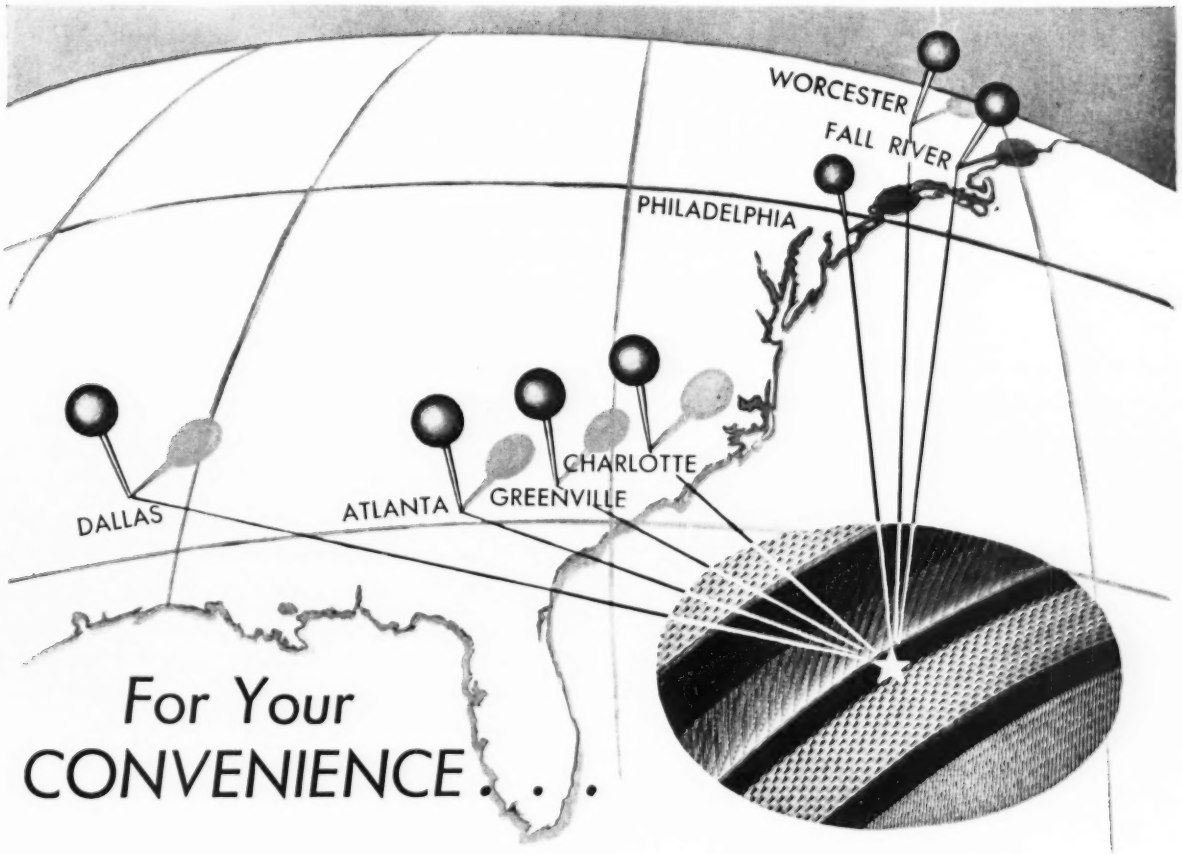
Charlotte†‡ Dallas†‡ (Textile Supply Co.)

**Factory* *†Repair Shop* *‡Distributing Point*

3 FACTORIES 6 REPAIR SHOPS 7 DISTRIBUTING POINTS



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3 Factories • 6 Repair Shops • 7 Distributing Points

Improved Device for Use With Pressley Tester

EDITOR TEXTILE INDUSTRIES:

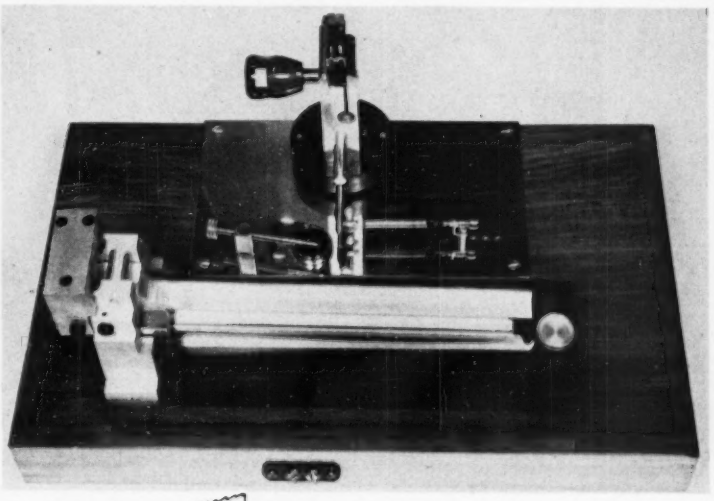
The shortcomings of the torque wrench method commonly used for obtaining proper jaw pressure in determining the Pressley strength index of cotton fiber has prompted many commercial fiber laboratories to develop various devices to help overcome this difficulty. One of the more common of such devices used at Texas Technological College in the fiber laboratories of the Cotton Research Committee of Texas is a variable torque vise originally described in the October 1951 issue of TEXTILE INDUSTRIES.

An improvement of this device is pictured here, along with a drawing detail. Tightening the screws on the jaws with a T-shaped wrench, comfortably fitting the operator's hand, tensions a spring to the desired amount as indicated by a flash of an instrument type pilot light mounted just below the pointer attached to the vise.

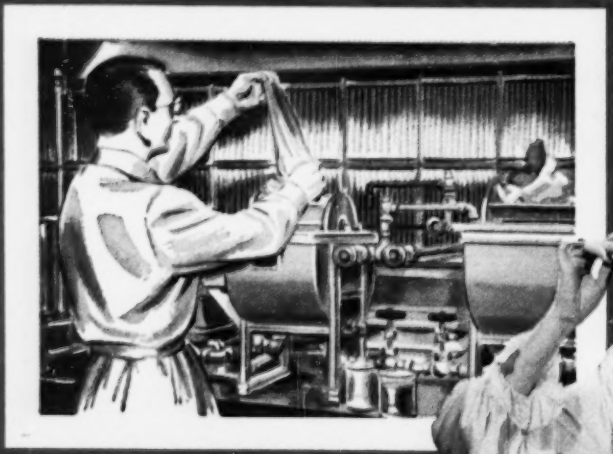
Proper spring tension and torque applied to a specific set of jaws is maintained by an adjustable screw stop which limits the travel of the pointer. The operator tightens the jaw screws until the pointer barely contacts the stop. This operation is easily mastered after a few tries. The flash of the light occurs just as the pointer contacts the stop. This aids the operator in moving the pointer up to the stop without applying further pressure to the screws, which would be necessary if the pointer were allowed to press against the stop.

Operators claim this device is easier to use and less fatiguing than the former method of attempting to move the pointer until reaching the stop or to some selected point on a scale mounted below the pointer.

LYLE E. HESSLER


PRESSLEY VISE
POINTER
FORMICA BASE
FLEXIBLE WIRE
TO 6 VOLT FILAMENT OR BELL TRANSFORMER OTHER CONNECTION (NOT SHOWN) ATTACHES TO POINTER STOP.
LAMP - G.E. #55
BEARING - NICE #2312

See TI's Kink Contest Announcement on page 169



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Dura Beau TEXTILE FINISHES

Reg. U.S.A. and CANADA

In the field of hosiery, for instance, DURA BEAU Finishes have been used—for decades—on more stockings than all other finishes combined! Write, wire or phone for one of our practical fieldmen.

SCHOLLER BROS., INC. • Manufacturers of Soaps, Softeners, Sulfonated Oils and Finishes • Collins & Westmoreland Sts., Phila. 34, Pa.

IN CANADA: SCHOLLER BROS., LTD., ST. CATHARINES, ONTARIO

What the TEXTILE MILLS are doing

The **American Woolen Co.** has closed the Brown & Foxcroft woolen mill at Dover-Foxcroft, Maine, and another plant at Pittsfield.

The recently established **Beacon Hill Rug Co.**, Fletcher, N. C., has begun manufacture of braid material, according to John Boss, president of the parent company, Midwest Rug Co., Amboy, Ill. Production at the Fletcher plant will be split between wool and cotton rugs.

A two-story addition to the plant at **Carlton Mills Co., Inc.**, 233-41 West Wyoming Ave., Philadelphia, Pa., is under construction.

A new weaving division for production of a fabric for floor covering has been established by **Chenille Rug Co.**, 875 East Hennepin Ave., Minneapolis, Minn. A number of looms were purchased from Klearflax Linen Looms, Inc., Duluth, Minn., now out of business.

William Carter Co., Needham Heights, Mass., has begun construction of a new knitting room and washing and bleaching building at its Barnesville, Ga., plant. 50,000 sq ft of additional space will be available.

Collins & Aikman has closed its Plant H in Bristol, R. I., and is concentrating all of its Bradford spun yarn in the West Barrington, R. I., plant. The weaving plant at Bristol is not affected by this move.

Dover Mill Co. has under construction a $300,000 throwing plant in Shelby, N. C., which will handle nylon, Dacron, and other filament yarns for use in tricot knitting and weaving at Dover and at Ora Mill.

To show the merchants and citizens of Eastman, Ga., how important the **Eastman Cotton Mill** is to them, on one payday the company paid its employees in two dollar bills, resulting in more than 6,000 of the bills being placed in circulation.

Land was recently donated to the Fieldale (Va.) Baptist church by **Fieldcrest Mills**, to be used as the site for a new parsonage. Other news from Fieldcrest concerns the second annual series of fall conferences for foremen and assistant foremen, which was participated in by 68 persons.

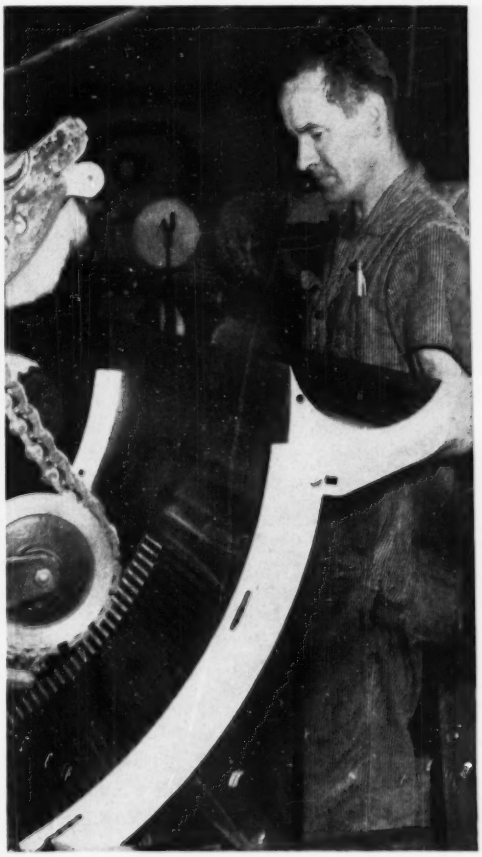
Morris Speizman of Charlotte, N. C., dealer in knitting mill machinery, has purchased the **Galax (Va.) Knitting Co.**, and will continue to operate the plant after some of the machines have been replaced.

More than 240 employees of the Cedartown, Ga., plant of **Goodyear Tire and Rubber Co.** were honored recently for having completed twenty years or more of service with the company. Employees completing 25 years were awarded gold and diamond pins and $100 in cash.

The Bartow Textiles, Inc., plant has been leased by **E-Z Mills, Inc.**, Car-

The Turn of a Card . . .

Can make a BIG difference in Your Profits



So, naturally, you back up your cards with the best! Jenkins precision-built card screens allow the extra-close settings to card cylinders that result in *royal* gains for you . . . higher production . . . cleaner, more even carding . . . and more spinnable cotton saved.

Draw on the engineered uniformity of Jenkins card screens for sure steady profits. A letter, wire or phone call will place a Jenkins representative at your service.

JENKINS
METAL SHOPS, Inc.
GASTONIA, NORTH CAROLINA

A WOOLEN MANUFACTURER
ASKED FOR:

Bright violet checks

The dyehouse delivered a perfect job,
thanks to a new Sandoz dyestuff development

Problem:

Recently a high-grade woolen manufacturer wanted to put out a fabric with bright violet checks. The problem was that the fast-to-light violets then available did not have sufficient fastness to fulling, and would stain the white checks, while the fast-to-fulling violets did not have sufficient fastness to light.

Solution: a new Sandoz dyestuff

The problem was solved by Sandoz' timely announcement of Brilliant Alizarine Milling Violet FBL Pat. This is the first violet dyestuff which possesses the required brightness of shade, along with both fastness to light and fastness to fulling. In addition to these properties, it also has excellent fastness to carbonizing, decatizing, crocking, salt water, perspiration, and washing.

Brilliant Alizarine Milling Violet FBL Pat. is the newest of several fast-to-light colors which Sandoz has pioneered. By combining them with Brilliant Alizarine Milling Blue BL Pat., Blue 2RL Pat., Blue FGL Pat., or Brilliant Alizarine Milling Red FBL Pat., it is now possible to produce violets in any shade or depth with excellent fastness properties.

• • •

If you are faced with the problem of obtaining a special shade or fastness for any fabric, natural or synthetic, Sandoz Technical Service may be able to help you solve it.

Write to your nearest Sandoz branch office in Hudson, Mass.; Providence; Fairlawn, N. J.; Philadelphia; Charlotte; Cincinnati; Los Angeles; Montreal; Toronto. Sandoz Chemical Works, Inc., 61 Van Dam Street, New York 13, N.Y.

SANDOZ

SANDOZ

THINKS AHEAD WITH TEXTILES

tersville, Ga., for expansion purposes. Also, a 33,000 sq ft stock and shipping department has been completed at the main plant.

Employees of **Erlanger Mills,** Lexington, N. C., recently purchased 294 houses previously owned by the company.

The new $150,000 plant of the **Hadley Corp.** in Weaverville, N. C., is now in operation. Mrs. Dorothy Gladwell is foreman in charge of the finishing department, and Warren Kilpatrick is supervisor of knitting. The company is a subsidiary of **Cashmere Corp. of America** and will manufacture full-fashioned sweaters of Cashmere yarn.

Hess, Goldsmith & Co. has developed a new glass fabric said to be the sheerest ever produced commercially. Named "Sheerleno," the fabric will be used in marquisette curtains, which will be introduced to the consumer public this spring.

Kendall Mills laboratories at Walpole, Mass., have developed a cotton-rayon product towel which is said to dry twice as many dishes and twice as fast as ordinary towels. A novel soak-up principle is employed in developing its chamois-like quality.

Mandeville Mills, Inc., Carrollton, Ga., was recently sold to the Comer Machinery Co., Atlanta, Ga. All orders now on the books will be completed.

Newton (Mass.) Textile Bleaching & Dyeing, Inc., recently organized, is engaged in the bleaching and dyeing and finishing of tubular knit cotton fabrics. Philip L. Factor, previously superintendent of bleaching and dyeing at Boston Knitting Mills, Inc., in Newton, is president.

NoMend Hosiery, Inc., has announced that its seamless operations at the Palmyra, Pa., plant will be transferred to the main knitting mill at Lebanon, Pa., by July 1. The Palmyra plant has been offered for sale. Space for the move was made available through the sale sometime ago of all 45-gauge equipment from the Lebanon plant.

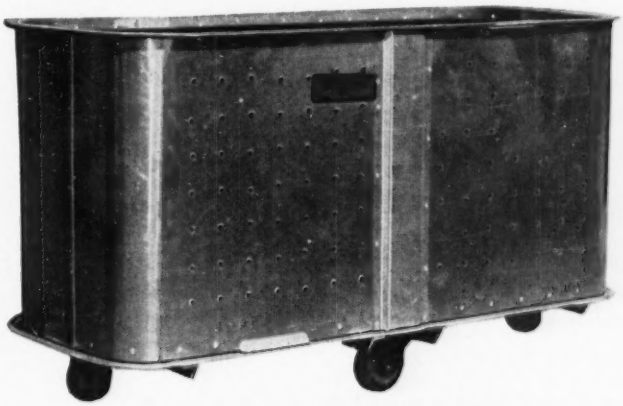
The Olympia and Granby units of **Pacific Mills** were recently honored for having completed a full year of accident-free operations. Representatives of both plants were given certificates at the S. C. Accident Prevention Conference. They were also honored by the S. C. Textile Manufacturers' Association.

The **New Orleans Twine Mills,** with a capacity to produce 4,250,000 miles of twine each year, were dedicated on Dec. 8, 1953, representing an investment of over $2,000,000 by International Harvester Co. The company has operated a twine mill in Chicago since 1900, but this mill was closed down last May, and all twine production is now centered in New Orleans.

The annual Christmas ball given by **The Russell Manufacturing Co.,** Alexander City, Ala., was attended by several thousand persons, and was highlighted by a performance by the Russell Choralteens. This singing and dancing group is composed of students from the eighth through twelfth grades in the Alexander City schools, and is in demand for programs over the state.

The **Pepperell Manufacturing Co.'s**

What the TEXTILE MILLS *are doing*



FISHER ALUMINUM CONDITIONING TRUCK

Rugged strength with light weight characterizes all our Aluminum trucks. The style illustrated is punched for steam conditioning use. The bottom is slatted with reinforced Aluminum angles to support heavy loads. Easy to keep clean.

Fisher makes many styles of trucks for every textile need. We will design a truck for any purpose you intend. Write for latest illustrated folder, and tell us your wants.

Representatives

Carolina Supply Co., 35 W. Court St., Greenville, S. C.
Textile Specialty Co., Box 1297, Greensboro, N. C.
J. W. Davis, 122 Dillingham St., Columbus, Ga.
Thos. A. Davis, 412 Swift Bldg., Columbus, Ga.

FISHER MANUFACTURING CO.
MATERIALS HANDLING EQUIPMENT, TEXTILE
BOX 244 -- HARTWELL, GEORGIA

Feature for feature you can't beat the . . .

New PROCTOR Air Slasher Dryer

HIGH PRODUCTION

Maximum production of quality yarn with capacity varying from 900 to 1500 pounds of dry warp per hour.

CONTROLLED CIRCULATION

Mild, hot air is carried to and away from the warp through patented parallel flow nozzle ducts virtually eliminating warp tangling or rolling.

LARGE HOLDING CAPACITY

Over 22 linear yards of warp makes five passes through the slasher—each pass directly subject to controlled air from an individual duct.

WET SPLITTING OF WARP

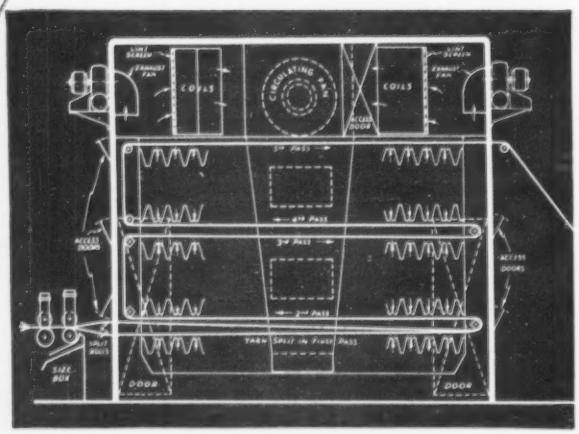
By splitting the warp at the entering end, sticking together is reduced which assists the separating action at the front, in addition to reducing shedding and resulting in higher quality yarn.

EASY TO CLEAN

Complete accessibility to heating coils, fans, air ducts, warp and dryer housing is provided for easy cleaning.

MINIMUM FLOOR SPACE

Housing is approximately 14'x12'-6" high x 9'-10" wide accommodating 60" wide warp. Other models are available for wider warps.



Check the new Proctor Air Slasher Dryer against any other make and feature for feature you can't match it . . . let alone beat it. The features listed here are but a few of the many which place this equipment far in the lead in dollars and cents advantages. The Proctor Air Slasher—developed and guaranteed by the world's largest and oldest drying machinery manufacturer—is engineered and designed in every detail to offer you the greatest number of advantages for the least cost. By any yardstick there is nothing to compare to it. For more detailed information on this latest equipment for slashing write today.

PROCTOR & SCHWARTZ · INC ·
PHILADELPHIA 20 · PA ·

plant at Lindale, Ga., by popular request, has established a Christmas Savings Club for its employees, deductions being made weekly and deposited in individual accounts in the local bank.

A work glove plant at Brundidge, Ala., will be established by **Riegel Textile Corp.** Production will be confined to part-leather gloves, and the plant will be operated as a branch of the Greenville, Ala., mill.

Polymer Corp., manufacturer of industrial plastics, has purchased all the knitting and finishing equipment of **Busy Bee Hosiery Co.,** Reading, Pa., and will sell all that is not needed in production of plastics.

A profit sharing plan for their employees has been placed into operation by **The Springs Cotton Mills.** Explaining the plan in a recent issue of "The Springs Bulletin," Elliott Springs, president, said in part: "Your share in the Plan costs you nothing. Each year that the Company makes enough money, a share of it will go into the Springs fund in your name. A part of the fund will be invested in common stock of The Springs Cotton Mills and, if the company prospers, you will share in the prosperity. You will get your share when you need it most—at retirement. You will get the total amount put into the fund for you, plus any interest, dividends, and increase in the value of the stock. You will also get a share of what is left in the fund by those who leave the company before retirement. None of the money ever comes back to the Company. It will be divided up among those who remain in the Plan."

In line with its policy of substituting diversified growth industry for uneconomic textile operations, **Textron Incorporated** has sold its East Greenwich tricot plant to Niles-Bement-Pond Co., which owns and occupies the adjacent plant.

United Merchants & Manufacturers, Inc., has registered $500,000 worth of interests in its Employees Stock Purchase Plan for 1954, and 245,122 shares of common stock for its Executive Employees Restricted Option Plan with the Securities and Exchange Commission. The interests and stocks have been offered to eligible employees of the company and its subsidiaries. Funds from the sale of shares will be used for general corporate purposes. Six 100-spindle ring twisters are being installed in the throwing department of the firm's Clarkesville, Ga., mill.

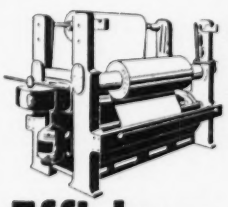
What the TEXTILE MILLS are doing

Stevens Financial Corp., a new firm engaging in general factoring and other forms of financing, is a wholly owned subsidiary of **J. P. Stevens & Co., Inc.,** with Harry J. Delaney, former executive vice-president, secretary, and director of Meinhard & Co., Inc., as president.

The textile division of **Southbridge (Mass.) Finishing Co.,** owned by Golden Bros. of New York City, was permanently closed. The plastics division will be continued as heretofore.

The MERA Bowling Alleys in Lowell, Mass., owned by the Merrimack Mill Recreational Association composed of operatives in the **Merrimack Manufacturing Co.,** are open to the public at regular rates. The entire profits are devoted to various employee activities.

Fast, Safe Way to Keep Looms at Peak Efficiency



JUST spray looms and knitting machines with Oakite Composition No. 99. Let solution soak five minutes, then blow dry. Looms dry down clean, and without any rust specks.

No ordinary solvent, Oakite Composition No. 99 eliminates fire hazards because you mix it with water. Economical, too—you need only a 10% solution to do the job.

FREE demonstration on request. Just ask your local Oakite Technical Service Representative. Or write Oakite Products, Inc., 52D Rector St., New York 6, N. Y.

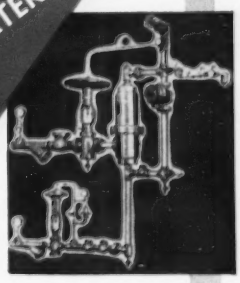
SPECIALIZED INDUSTRIAL CLEANING

OAKITE

MATERIALS • METHODS • SERVICE

Technical Service Representatives in Principal Cities of U. S. & Canada

Insist on **Pick** INSTANTANEOUS HOT WATER HEATERS



SAVES MONEY IN ALL TEXTILE WET PROCESSING

IN DAILY USE at . . .

Bates Mfg. Co.
Exeter Mfg. Co.
Pepperell Mfg. Co.
Fieldcrest Mills
Dan River Mills
Pendelton Woolen Mills
and many others.

Write Dept. T1154 for booklet on how Pick Heaters cut costs of hot water. No Obligation.

PICK GIVES YOU MAXIMUM EFFICIENCY

★ *Water Is Heated INSTANTLY* by steam injection. Fuel savings are substantial because there is no waste — water is heated only as used.

★ *Pick Heaters Maintain Continuous Flow* at preset temperature for bleaching, dyeing, scouring, etc.

★ *Safe, Quiet Operation.* Exclusive "Pressurizer Piston" assures maximum safety and eliminates hammer, noise and vibration on continuous or "start and stop" loads.

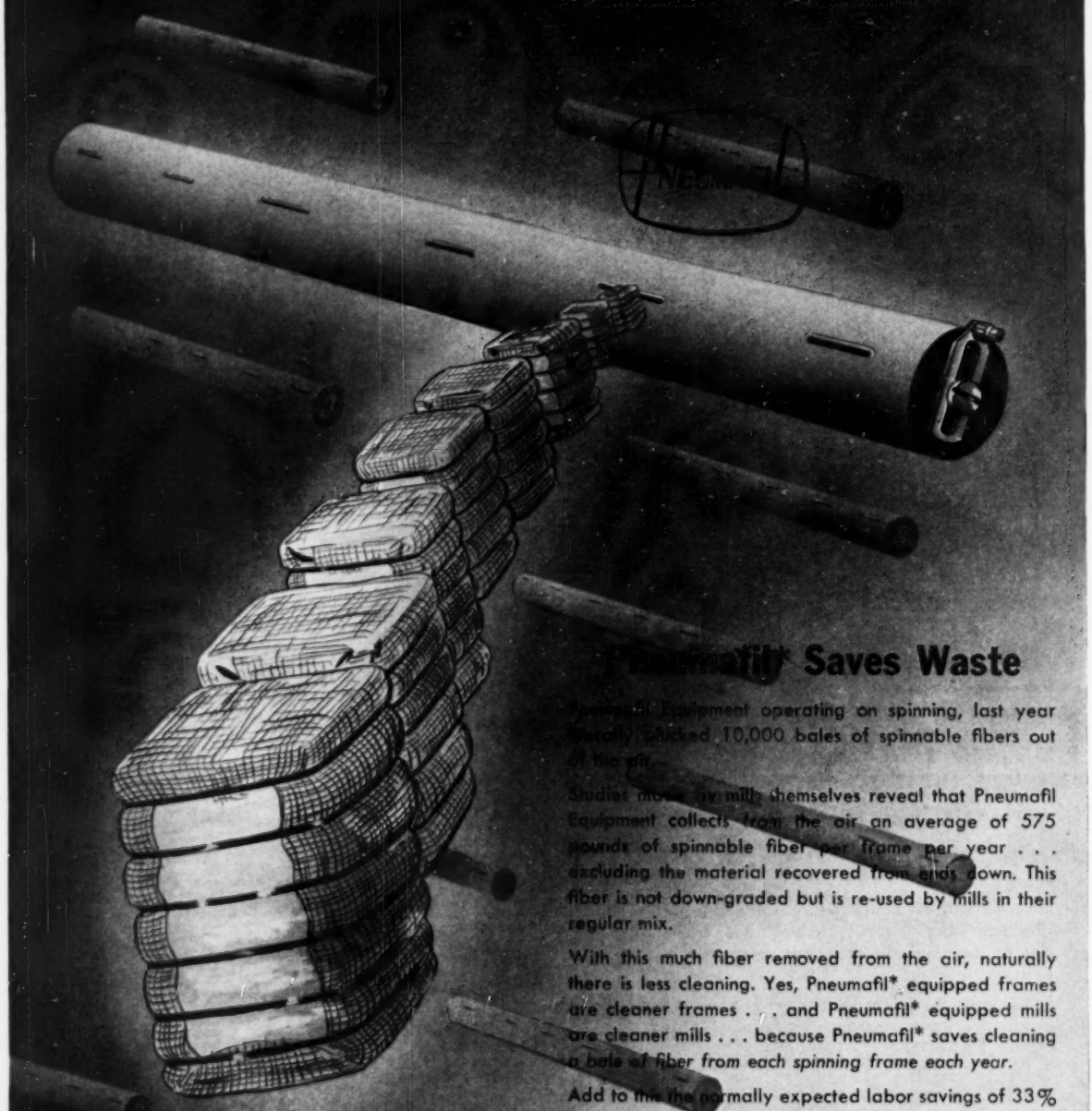
★ *No Storage Tanks Required.* Pick Heaters are compact — can be installed in corners, on walls or overhead. Saves valuable floor space.

★ *Many Other Cost-Reducing Advantages.* Maintenance cost is remarkably low because Pick Heaters can be cleaned in a matter of minutes. Installation is simple and inexpensive . . . only ordinary pipe connections are required.

PICK MANUFACTURING CO.
WEST BEND, WISCONSIN

Pick STEAM INJECTION

10,000 Bales Saved Last Year!



Pneumafil* Saves Waste

Pneumafil Equipment operating on spinning, last year literally plucked 10,000 bales of spinnable fibers out of the air.

Studies made by mills themselves reveal that Pneumafil Equipment collects from the air an average of 575 pounds of spinnable fiber per frame per year . . . excluding the material recovered from ends down. This fiber is not down-graded but is re-used by mills in their regular mix.

With this much fiber removed from the air, naturally there is less cleaning. Yes, Pneumafil* equipped frames are cleaner frames . . . and Pneumafil* equipped mills are cleaner mills . . . because Pneumafil* saves cleaning a bale of fiber from each spinning frame each year.

Add to this the normally expected labor savings of 33% . . . and the resultant improvement in quality and there is only one conclusion . . .

Pneumafil* is the best investment you can make.

*Trade Mark

PNEUMAFIL CORPORATION · Charlotte 8, North Carolina

Sales Offices: Needham Hts., Mass.—Atlanta

SUPPLIERS News

WHAT THEY ARE DOING

C. Eugene Hunter, Jr., was recently transferred from the Bethayres,

Mr. Hunter

Pa., office of **H. W. Butterworth & Sons Co.** to the firm's Charlotte, N. C. branch office.

Robert P. Thornton has been added to the Boston sales office of **American Viscose Corp.**, Sylvania division. His territory is south Massachusetts, Rhode Island, and part of Boston. In the New York sales office are W. J. Howells and L. D. Tyler. Mr. Howells has been assigned to southern Pennsylvania and West Virginia, and Mr. Tyler will handle the northwestern Pennsylvania territory. The twelve winners in the firm's annual calendar contest were awarded $50 each. The calendars with the twelve winning pictures were sent to 36,000 employees, stockholders, customers, and friends.

Curran S. Easley has been appointed a district sales manager for **Alvey Conveyor Manufacturing Co.**, St. Louis, Mo. His headquarters are at P. O. Box 3123, Greenville, S. C.

American Cyanamid Co. has reorganized its development functions into three departments: fiber development, headed by C. W. Bendigo; market research, with Borden R. Putnam, Jr., as manager; and new product development, managed by Nolan B. Sommer. In the Calco Chemical division, William C. Marshall has been appointed representative of the dyestuff department for the Pacific Northwest territory. His headquarters are at 935 N. W. 12th Ave., Portland, Oregon.

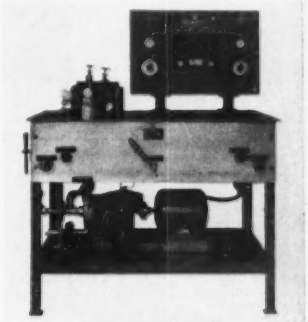
W. R. Mitchell, controller of **American Pulley Co.** since 1945, is now also a vice-president. H. M. Bowman has been elected vice-president in charge of sales and advertising.

Osborne Bezanson has been made chairman of the board and Henry H. Bitler, president, of **The Chemstrand Corp.** Other officers are: Roy G Hemminghaus, F. William Koster, William G. Luttge, and Frank J. Soday, vice-presidents; Thomas H. Choate, secretary; and James H. Crow, Jr., assistant secretary. Dr. Charles S. Venable has resigned as vice-president but will remain a member of the board.

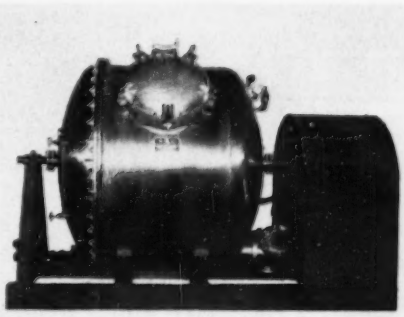
Clarence E. Killebrew, formerly manager for marketing and sales in the firm's construction machinery division, has been elected vice-president of **Clark Equipment Co.** He will

Today's Most Rugged Most Economical

DYEING MACHINE EQUIPMENT

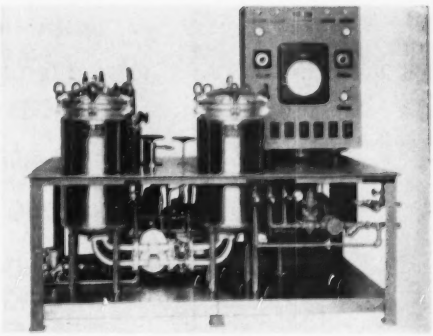


Laboratory Dyeing Machine



High Pressure Rotary Dyer

Two-Kier Package Dyeing Machine (Table Model)



Gaston County offers you a complete line of today's most rugged dyeing equipment . . . engineered with the most modern automatic controls for high-pressure, high-temperature dyeing essential for today's new yarns.

GASTON COUNTY

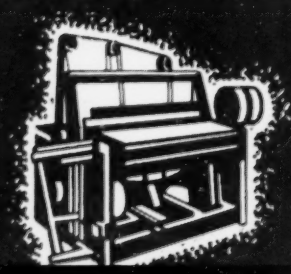
GASTON COUNTY DYEING MACHINE COMPANY

STANLEY, N. C.

Pioneers in Automatically Controlled Dyeing Machinery

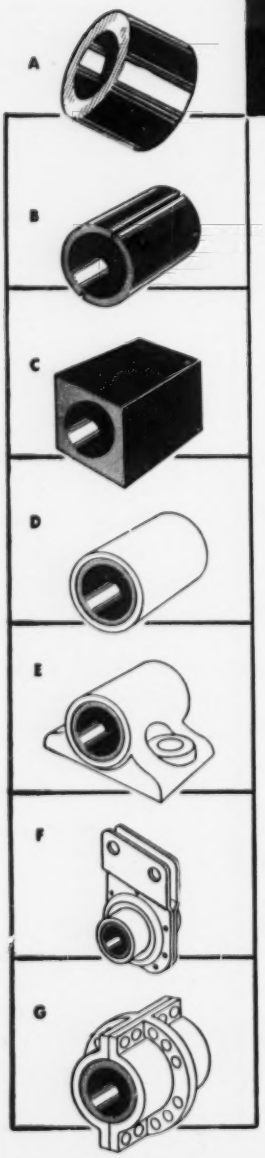
USE OUR 40 YEARS OF BEARING EXPERIENCE!

GRAPHALLOY BUSHINGS



GRAPHALLOY CONTAIN NO OIL

The IDEAL textile machinery bearings!



OPERATE DRY or SUBMERGED

GRAPHALLOY BUSHINGS cut textile manufacturing costs in these ways:

- ELIMINATE OIL and OILING SCHEDULES
- PREVENT OIL AND GREASE SPOTS ON FABRICS
- AVOID WEAR ON SHAFT AND BUSHING FROM LINT AND DUST GATHERED BY OIL FILM
- OPERATE WITHOUT ATTENTION IN "INACCESSIBLE" LOCATIONS
- REDUCE FIRE HAZARD
- HAVE LONG LIFE
- EXCEL WHEN SUBMERGED...AS IN WASHING, BLEACHING, DYEING, CARBONIZING
- WITHSTAND HIGH TEMPERATURE (to 700°F) AS IN DRYERS, OVENS, MANGLES, and in ROTARY STEAM JOINTS

The GRAPHALLOY process was patented 40 years ago and the name GRAPHALLOY has been our copyrighted trademark since that time. While this company has been selling GRAPHALLOY for the past 40 years, recent developments have added materially to its properties.

Use GRAPHALLOY BUSHINGS For TROUBLE-FREE OPERATION in the following TEXTILE EQUIPMENT:

BLEACHING	NEUTRALIZING
CARBONIZING	PICKING
CONDITIONING	PRESSING
CRABBING	SCOURING
DECATING	SINGEING
DRYING	SLASHING
DYEING	SOAPING
EXPANDING	SPINNING
FINISHING	STEEPING
FULLING	WASHING
GYRATING	WEAVING
MERCERIZING	WINDING

Send for descriptive literature and Bushing Inquiry Form 107A. Our broad experience is available to solve your problems.

GRAPHITE METALLIZING CORPORATION 1090 NEPPERHAN AVE. YONKERS, N. Y.

have similar responsibility in his new position. The company's mobile service school, as an extension of its factory training program for customer personnel on the maintenance and operation of its equipment, is offering advanced training in the customer's "back yard." Only employees already familiar with general automotive maintenance and repair techniques are eligible for the course. The Service School is now touring the country and holding sessions in each dealer's area.

Colgate-Palmolive Co. is the new name for **Colgate-Palmolive-Peet Co.**

Howard Bros., manufacturers of card clothing and hand cards, have prepared a cabinet exhibit of samples

Harry C. Coley (right), president of Howard Bros., presents one of the card clothing exhibits to President Martin J. Lydon of Lowell Technological Institute.

for use in textile schools and colleges. Each exhibit contains twenty different card clothing samples, plus four hand cards.

Saul F. Dribben, president of **Cone Mills, Inc.,** was recently honored at a luncheon by the textile section of the New York Board of Trade. A silver plaque was presented in recognition of his long record of outstanding contributions to the industry.

Albert H. Gordon, partner, Kidder Peabody & Co., has been elected to the board of directors of **Container Corp. of America.**

O. E. Anderson has joined the technical staff of **Continental-Diamond Fibre Co.** He serves as technical service representative for the company's Silicone, Teflon, and Polyester flexible sheet and tape products.

Willard F. Staples has rejoined **Crescent Corp.,** dealers in used and rebuilt textile machinery, as executive vice-president. He was with the firm until December, 1952, when he went with Merrimack Manufacturing Co., previously owned by Crescent and sold to a new corporation, as president, treasurer, and a director. While he is retaining his titles at Merrimack, he has given up all active participation in the operation of textile mills and concerns himself in the further development of the business of Crescent Corp.

An air-conditioned building at 489 Bishop St. N.W., Atlanta, Ga., has been purchased by **Johnson Service Co.** to provide more space for its Atlanta branch and Georgia-Alabama-Florida headquarters.

John F. Veach has been appointed representative in the South for the

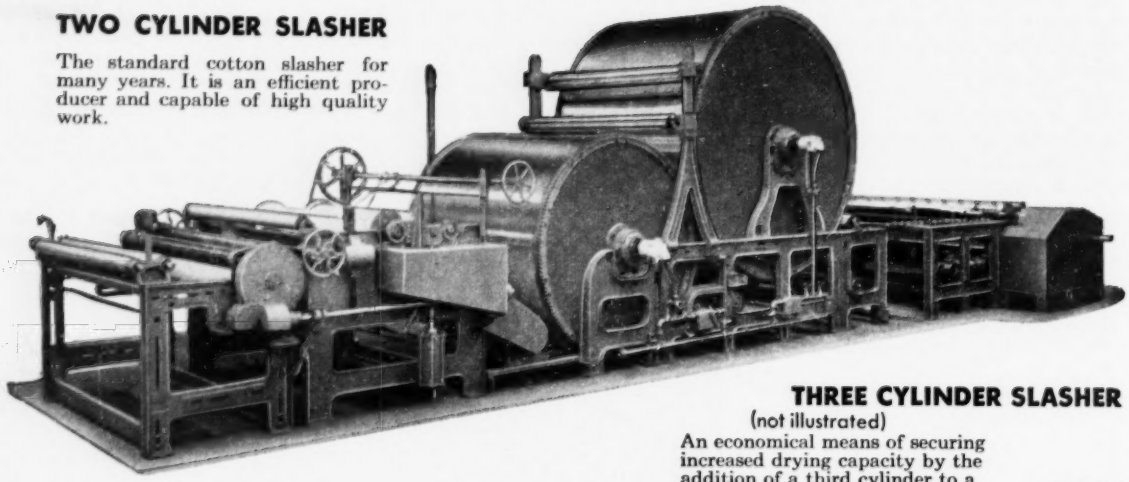
(Continued on page 201)

SUPPLIERS News — WHAT THEY ARE DOING

TOKOL
THE ADVANCED LUBRICANT FOR CONING NYLON YARN ALL DENIERS, SIZED OR UNSIZED.
TOKOL actually relaxes the yarn. Here are a few advantages: it gives absolute control over cone density, greatly reduces rejects, is moisture resistant, delivers completely free of cone without drag, and gives a firm, sleek yarn.
For the best in coning, cone with the best—TOKOL.
WILLCO PRODUCTS CO.
7341 N. 19th St.
Phila., 26, Pa.

TWO CYLINDER SLASHER

The standard cotton slasher for many years. It is an efficient producer and capable of high quality work.



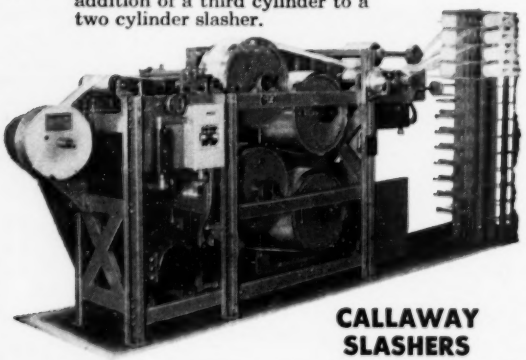
THREE CYLINDER SLASHER

(not illustrated)

An economical means of securing increased drying capacity by the addition of a third cylinder to a two cylinder slasher.

A Slasher To Fit Every Requirement

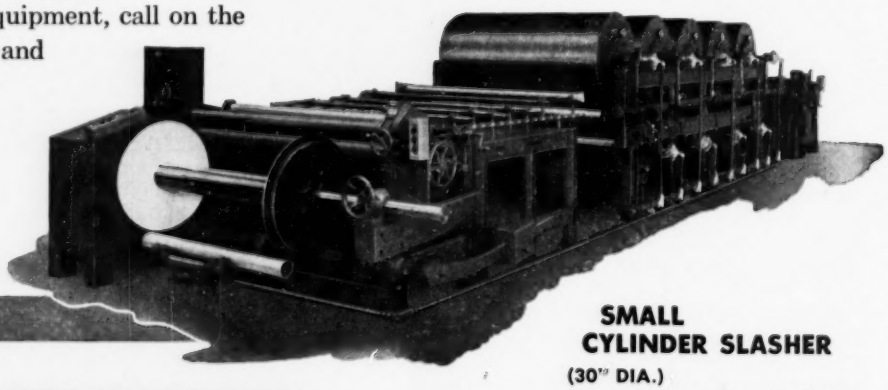
There s a WPF&M slasher for virtually every slasher room requirement . . . sample slashing or full production . . . the lightest gauze or the heaviest sheeting . . . natural fibers or synthetics. Whether you require a complete slasher installation, from size preparation to the finished warp, or modernization of your present equipment, call on the West Point Foundry and Machine Company—specialist in slasher room machinery.



CALLAWAY SLASHERS

Model 50 **Model 51** (illustrated)

Small, narrow-width machines capable of making full width warps for samples, testing, etc., using small amounts of yarn.



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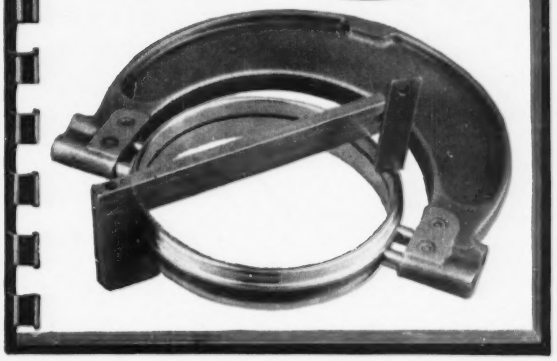

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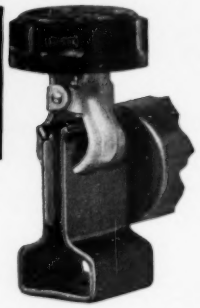

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437. **SPINDLE TAPE LACING EQUIPMENT** — Circular No. 54 illustrating and describing the Clipper method of joining spindle tapes.—CLIPPER BELT LACER CO., Grand Rapids 2, Mich.

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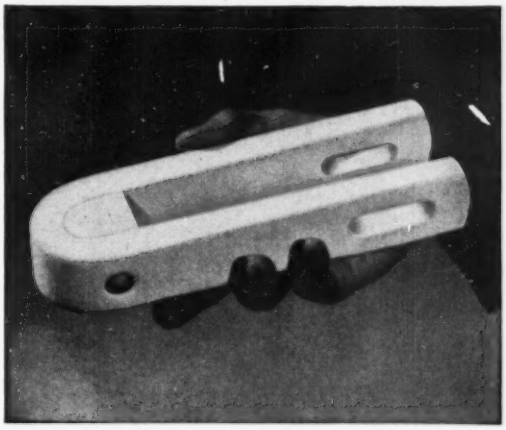

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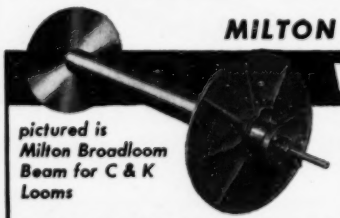

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1007. **OVERHEAD HANDLING EQUIPMENT**—56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem.—THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

1008. **CASTERS AND WHEELS**—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. **CONVEYOR KEY BOOK** — A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well-illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1011. **TEXTILE TRUCKS**—Booklet describing doff boxes, frames and trucks, yarn, waste, platforms, conditioning, steep lap, fiber, utility trucks, etc. Uses and description.—EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

1012. **"SERVES YOU RIGHT"** is theme of succint review of fork-lift trucks, powered hand trucks and industrial towing tractors, with emphasis on proper planned materials handling systems, which can be obtained from CLARK EQUIPMENT CO., INDUSTRIAL TRUCK DIV., Battle Creek, Mich.

1013. **"A STORY OF TRACTOR TOOLS AND THEIR USE"**—Comprehensive illustrated guide effectively present in cartoon-style the many principal uses for this type of equipment.—HYSTER CO., 2903 N.E., Clackamas St., Portland 8, Ore.

1025. **ELECTRIC HOISTS AND CRANES**—Booklets describing a complete line of Electric Overhead, Cab and Floor Operated Traveling Cranes, and a similar complete line of Electric Hoists. All fully discussed with pictures and engineering diagrams.—SHEPARD NILES CRANE & HOIST CORP., Montour Falls, N. Y.

1030. **CDF RECEPTACLES**—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

1032. **ELECTRIC CHAIN HOISTS**—Bulletin 852 describing Robbins & Myers Type "JC" Electric Chain Hoists. Capacities 500, 1000 and 2000 pounds.—ROBBINS & MYERS, INC., HOIST & CRANE DIV., Springfield, Ohio.

MISCELLANEOUS . . .

1101. **AUTOMATIC BOBBIN REFINISHER**—A descriptive bulletin illustrating and describing method of refinishing throwing bobbins on a production schedule.—J. M. NASH COMPANY, 2300 N. 39th St., Milwaukee, Wis.

1102. **BALING PRESSES**—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. **UNBRAKO SCREWS**—Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1107. **AUTOMATIC QUILL POLISHER**—Bulletin describes production machine for refinishing loom bobbins. Tells how quills can be kept in perfect condition at minimum labor cost.—J. M. NASH CO., 2360 N. 30th Street, Milwaukee 10, Wis.

1108. **FABRICATION OF U. S. STAINLESS STEELS**—136-page book covering use of stainless steel in textile equipment from cutting to cleaning. Includes corrosive-resistance tables for chemicals.—CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh, Penn.

1111. **BRUSHES**—A 26-page booklet is now available which describes and illustrated this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. **THE RANDOM WEB PROCESS**—Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams.—CURLATOR CORPORATION, Textile Division, 565 Blossom Rd., Rochester, N. Y.

1113. **MACHINE KNIVES**—Catalog and price sheets describing this company's line of knives for use on textile machinery.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1115. **TEXTILE WRAPPING MACHINES**—Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfold, most protective package made.—HAYSSEN MANUFACTURING CO., Sheboygan, Wisconsin.

1122. **BALING PRESSES**—Bulletins available describing this company's line of motor-driven and hydraulic baling presses for finished goods, textile fibers, wool, and waste of all kinds.—LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wisconsin.

SUPPLIERS News
WHAT THEY ARE DOING

(Continued from page 191)

Karl H. Inderfurth Co. He was previously with Frank Ix & Sons.

John R. Cassleman, Jr., and George Kegelmeyer have been named assistant vice-presidents of **William Iselin & Co., Inc.** Both have been with the firm for more than ten years.

Walter Kidde & Co., Inc., has announced the establishment of a Mexican subsidiary which will receive parts from the parent company as well as from local sources. Offices of Walter Kidde de Mexico, S. A., are located at Calle de 13 PTE 330, Santa Maria Insurgentes, Mexico City.

Donald J. Hanchett has been made manager of the thermosetting resins branch, sales development section, **Koppers Co., Inc.** Edwin W. Shand is manager of the specialty chemicals branch.

New southern district manager for the Republic Rubber Division, **Lee Rubber and Tire Corp.,** is F. Doyle Bowers, who will manage the firm's office in Atlanta and supervise field representatives in Jackson, Miss., Chattanooga, Tenn., and Columbia, S. C.

Commercial Factors Corp., now concluding its 125th year, is the newest member of the Hundred Year Association, composed of New York firms with a continuous history of

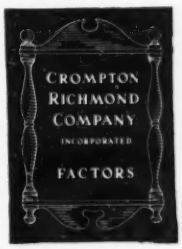
more than 100 years. Johnfritz Achelis, president (right), accepted the membership certificate given to him by W. E. S. Griswold, Jr., president of W. & J. Sloane, Inc., and a vice-president of the Association.

The **Davison Chemical Corp.** has elected Marlin G. Geiger president and chief executive officer, succeeding R. L. Hockley, resigned. Mr. Geiger has been with the firm since 1934.

Dixon Lubricating Saddle Co. has changed its name to **Dixon Corp.** Richmond Viall, president of Marshall & Williams Corp., and James S. Coles, president of Bowdoin College, have been added to the board of directors.

This year **Durant Manufacturing Co.,** Milwaukee, Wis., celebrates its 75th anniversary. In 1879 W. N. Durant designed a hand-made, flat case model counter with a trip lever extension for counting bags of flour in rolling mills. In the early 90's one of the first electric counting machines was offered to the public. After H. O. Winkler purchased the company in 1905, a definite expansion program took place until now Durant is one of the country's largest manufacturers of counting instruments.

William Andersson, Jr., has been appointed to the technical sales staff



The Human Factor

A Horse of Another Color

During the Seller's Market, receivables were not a problem in the South. Merchandise was far more valuable than money. Business was there for the asking. Anticipations were a bid for more goods.

In the Buyer's Market, there is a greater strain in selling... which means that more businesses are feeling a greater strain because of out-sized receivables.

Thus, more and more Southern firms are turning to Crompton Factoring to keep them liquid. We restore the business balance by increasing the turnover of working capital.

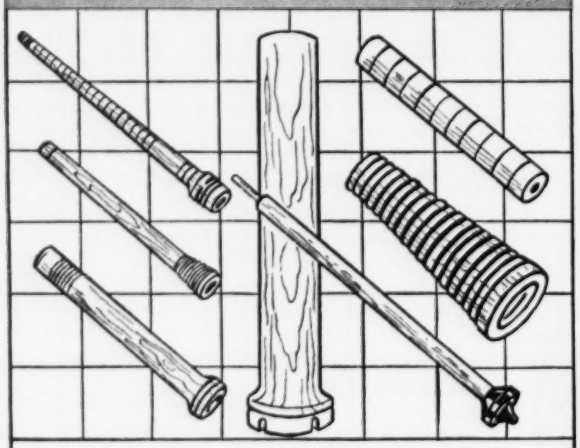
We provide immediate cash—on a continuing basis—when we take over your receivables. We also take over your credit risks and collection chores at the same time.

Making your capital work that much faster is equivalent to that much more capital without actually having it.

Representatives:
L. N. HUFFSTETLER, Box 605, Gastonia, N. C. • VON D. OEHMIG, Green Island Hills, Columbus, Ga.

CROMPTON-RICHMOND CO., INC.
1071 Avenue of the Americas, New York 18, N. Y.

MONTICELLO BOBBINS
"Engineered For Service"



FROM CARD ROOM BOBBINS TO OUR LATEST
PATENTED PLASTIC BASE SKEWER
"ENGINEERED FOR SERVICE"
WE CAN EXTEND THE LENGTH OF YOUR
BOBBINS GIVING YOU A
COMPLETE NEW TOP BEARING

MONTICELLO
BOBBIN COMPANY
MONTICELLO, GEORGIA

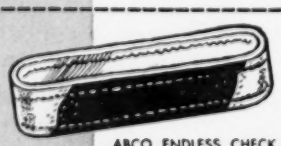
The ONLY manufacturer of Card Room Bobbins in the South

REDUCE COSTS AND INCREASE PRODUCTION WITH OUR ABC HAIRON CHECK STRAPS

REGULAR

ABC HAIRON CHECK STRAPS last longer by actual Mill Tests. As much as 2 to 4 times longer than competitive straps.

ENDLESS



ABCO ENDLESS CHECK STRAPS. Two-ply thick, cemented and stitched for long, dependable service and less stretch.

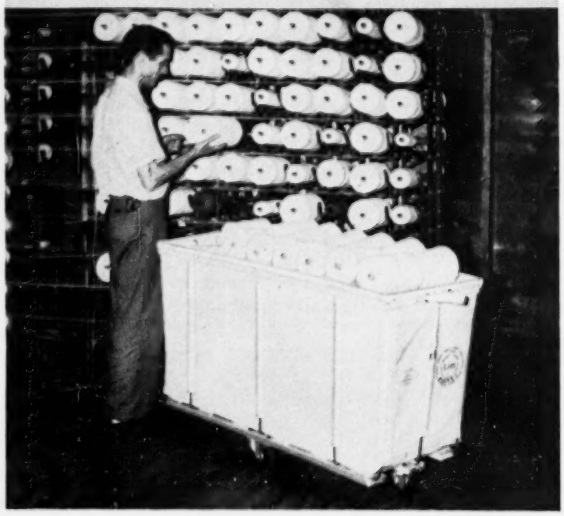
CURVED

ABC HAIRON CURVED CHECK STRAPS. Cut from the same foreign Hairon Leather as our regular ABC HAIRON CHECK STRAPS.

ATLANTA BELTING COMPANY
508-510 WHITEHALL ST., S.W., ATLANTA, GEORGIA

for the best in CANVAS roving trucks

LOOK FOR **Lane**



Designed especially for running in narrow aisles, between machines, any tight place—*only* this Lane Style 28 Roving Truck incorporates *all* these quality features for *long, dependable service at very low cost.*

- Sturdy, strong-stitched body of Lane-woven duck—either plain or plasticized.
- Scuff-proof leather rim to protect against wear.
- Lightweight, extra-strong, spring-steel frame with rugged, flexible hardwood bottom.
- Oversize casters for easy handling of *any* load.

STANDARD SIZES AVAILABLE

No.	Length	Width	Depth
9	36"	20"	26"
12	48"	20"	26"
14	48"	24"	26"

Lane canvas baskets, hampers, and trucks are *built to take it, built to last!* There are other canvas baskets, but there's only *one* Lane. Always look for the Lane mark—to be sure!

See your distributor or write . . .

8876

Canvas Basket Craftsmen Since 1894

Lane THE LANE BASKET

W. T. Lane & Bros., Inc., Poughkeepsie, New York

Berkshire Color & Chemical Builds

A new building to house the laboratories and administrative offices of the Berkshire Color & Chemical Co., Delawanna, N. J., has been completed.

Pictured here is a view of one of the laboratories in which technicians render customer service by solving textile processing problems.

of **Finetex Incorporated.** He was previously with Colloids, Inc.

General Dyestuff Corp. has announced the appointment of Lawrence S. Thompson as manager of the dyestuff technical department. He replaces D. E. Marnon, resigned.

Edgcomb Steel Co. has announced that Frank F. Rose, general manager of its Charlotte, N. C., branch, was

Mr. Rose

recently appointed a vice-president of the company. Mr. Rose joined Edgcomb ten years ago as a salesman.

Earl C. Lenz, formerly with Paisley Products, Inc., subsidiary of **Morningstar, Nicol, Inc.,** was recently elected vice-president of sales and advertising for the parent company and all its subsidiaries.

Mitchell B. Moore, newly appointed vice-president of **National Carloading Corp.,** has been placed in charge of the newly created southern division, with headquarters in Atlanta, Ga. Hugh E. Cooney will assist Mr. Moore.

H. F. Livermore Corp.'s new pilot weave room at the Boston plant was designed to provide mill conditions for on-the-spot development and testing of loom parts and assemblies manufactured by the firm.

The **F. E. Bennet Co.,** Portland, Ore., has been appointed sales representative in Oregon for the **Magnesium Co. of America.**

Charles B. Elledge of General Electric Co. has been elected president of **The Material Handling Institute.** He succeeds Howard M. Palmer, now a director of the association. First and second vice-presidents, respectively, are Walter E. Schirmer of Clark Equipment Co. and Edward W. McCaul, Jervis B. Webb Co.

Morse Chain Co.'s modernization program in the Ithaca, N. Y., power transmission chain manufacturing plant has been completed at a cost of $1,500,000. To provide for expanded chain manufacturing plant facilities, a 75,000 sq ft iron foundry was converted to a punch press and heat treating plant, and an addition with railroad siding was built on the former foundry building for steel storage.

National Vulcanized Fibre Co. has announced plans for enlargement of manufacturing facilities and product development. A new development and research department is being organized, and the program also in-

Are You Getting a Fair Day's Work for a Fair Day's Pay?

As Production Engineers we specialize in the utilization of

LABOR — EQUIPMENT — MATERIAL

Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"We have found them to be a very high type concern and are glad to recommend them to anyone interested in the type of work they sell."
A SMALL SOUTHERN HOSIERY MILL

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

AMERICAN ASSOCIATED CONSULTANTS, Inc.

D. S. KEOGH, President
250 PARK AVENUE
NEW YORK 17, N. Y.

GRANT BUILDING
PITTSBURGH, PA.

H. B. CRAFT, Vice President and Manager of Operations
30 CAMDEN ROAD
ATLANTA, GA.

Nearly 4000 TYPES of CASTERS & WHEELS

Textile Men in the "know"

DEMAND DARNELL

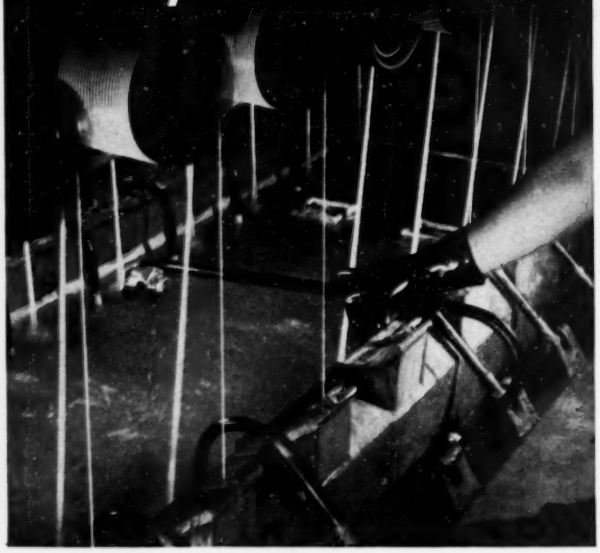
CASTERS & WHEELS

Darnell Casters and Wheels start cutting costs from the very first day of installation. Easy rolling and swivelling increase employee efficiency, save floors and help add to production. With over 4000 types of casters and wheels to select from you can specify the exact model to meet your requirements.

Free Darnell Manual

DARNELL CORPORATION, LTD.
DOWNEY (LOS ANGELES COUNTY) CALIFORNIA
60 WALKER STREET, NEW YORK 13, NEW YORK
36 NORTH CLINTON STREET, CHICAGO 6, ILLINOIS

Three feet of a Rayon Miracle



This short length of Superior tubing—original equipment on Industrial Rayon Corporation's continuous spinning and process machines—carries viscose the last three feet to the spin bath where it's forced through spinnerets to solidify as filaments of rayon yarn.

Industrial Rayon, developers of this revolutionary Continuous Process Method, forms these spin bath tubes from Superior ⅜" O.D. Temper #1 Carbon Steel Tubing purchased through a local distributor. They specified Superior tubing because they've found that size and quality are always uniform . . . wearability excellent . . . cost low.

If you use tubing in your textile processing—**for warp bars, thread guides, needles, welt rods or any other purpose,** write for Bulletin 32...it contains many helpful ideas. Superior Tube Company, 2007 Germantown Ave., Norristown, Pa.

Round and Shaped Tubing available in Carbon, Alloy and Stainless Steels, Nickel, Nickel Alloys and Beryllium Copper and Titanium.

Superior
THE BIG NAME IN SMALL TUBING

All analyses .010" to ⅝" O.D.
Certain analyses in Light Walls up to 2½" O.D.

West Coast: Pacific Tube Company, 5710 Smithway St., Los Angeles 22, Calif. UNderhill 0-1331

SUPPLIERS News
WHAT THEY ARE DOING

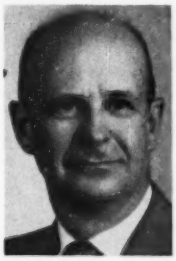
cludes a half-million dollar building and facilities expansion project.

Guerdon S. Allen and Stewart S. Shaft have been elected executive vice-presidents of **Nutting Truck and Caster Co.** They also hold the positions of secretary and treasurer, respectively.

R. Timothy Gibson is now metropolitan New York sales representative for **Ohio Falls, Inc.,** with offices at 40 Worth St., New York City.

Robert Reiner, Inc., has become sole agent for Karl Rabofsky F.m.b.H., West Berlin SW 61, Germany, makers of pleating machinery for 60 years.

Ben H. Kirby has been appointed superintendent of operations in the fine chemicals division of **Pittsburgh Coke & Chemical Co.** A. F. Beane has



Mr. Beane

joined the division as a dyestuff sales representative, with headquarters at 1524 South Boulevard, Charlotte, N. C.

A four-story factory building and seven acres of land have been purchased by **Pittsburgh Plate Glass Co.** The building will be used for warehousing and shipping purposes, and part of the land will be converted into a 300-car parking lot.

John Drollinger, Jr., manager of the Toledo sales office of **Reliance Electric & Engineering Co.** for the past two years, has been named manager of the renewal parts and repair division in Cleveland; William C. Mitchell, previously sales application engineer at Baltimore, replaces him. Robert O. Gee, an application engineer in the applied engineering department in Cleveland, becomes manager of service.

Frederick L. Maltby has been named technical director at the **Fielden Instrument Division** of **Robertshaw-Fulton Controls Co.** He was formerly with the Bristol Co.

Joseph A. Patrick has been added to the New York sales force of **Standard-Coosa-Thatcher Co.**

J. L. Haynie, 2195 Bolton Road, Atlanta, Ga., is representing **Standard Mill Supply Co.** in the State of Georgia. He was formerly with Whittier Mills and Fickett Brown Manufacturing Co.

Richard Muller is now the **Tower Iron Works** chief engineer. He has been with the firm since 1950.

Walter C. Thompson has been elected president of **The Torrington Co.,** and Ray B. Nichols was elected executive vice-president. New general sales manager is Byron T. Virtue, chief engineer of the bearings division of the firm.

Steinberg Brothers, textile machinery corporation, is now offering as an additional service to provide appraisals for insurance, trusts,

New Quarters for Hollister-Moreland

Hollister-Moreland Co., Inc., has moved to a new building on Asheville Highway, Spartanburg, S. C. The masonry and glass structure features an open-vision front, and the use of skylights in the roof has been incorporated in the construction.

AT YOUR SERVICE

SPECIALIZED ENGINEERING

SPECIALIZED EXPERIENCE

SPECIALIZED MACHINERY FOR TWISTING BUNCHING STRANDING FORMING AND LAYING IN THE TEXTILE • WIRE CORDAGE AND MANY OTHER INDUSTRIES

WRITE TODAY, YOUR INQUIRY WILL GET PROMPT ATTENTION

HASKELL-DAWES MACHINE CO., INC.

2231 E. ONTARIO ST.
PHILADELPHIA 34
PA.

EXACT WEIGHT Scales

. . . for accuracy in dye compounding

Color control in textile dyeing demands extreme accuracy. EXACT WEIGHT scales give uncanny precision—to 1/10 of an ounce—plus work-Speeding ease of readability. Adjustable Clamping Mechanism arrests the indicator quickly. One inch to one ounce indicator travel permits fast, accurate reading.

The Model 8003DH is built to take it, too. Designed to withstand corrosive action of dyes and chemicals, it is made of cast iron, porcelain enamelled, and has a capacity of 12 pounds. Weighs accurately even in out-of-level positions. Send coupon for full details.

Exact Weight Scales

Better quality control
Better cost control

THE EXACT WEIGHT SCALE COMPANY

922 W. Fifth Avenue, Columbus 8, Ohio
2920 Bloor St. W., Toronto 18, Canada

Please send information on Model 8003 DH

☐ Literature only ☐ Have representative call

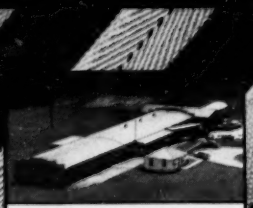
Name .....

Address .....

City ..... Zone ..... State .....

LAMBETH

Spinning & Twisting Tape



KINGS MOUNTAIN, N. C.

Made in the South for Southern Spinners

In the Most Modern Plant of Its Kind

Standard types in stock
Prompt delivery on specialties

LAMBETH ROPE CORPORATION
KINGS MOUNTAIN, NORTH CAROLINA

WE design, fabricate and erect elevated tanks, in capacities from 5,000 to 2,000,000 gallons, with hemispherical, ellipsoidal, or conical bottoms. Write for prices, stating capacity, height to bottom and location.

Established 1854

R. D. COLE MFG. CO.
NEWNAN, GEORGIA

ELEVATED TANKS • VESSELS • CYLINDERS
TOWERS • BINS • STANDPIPES

SUPPLIERS News
WHAT THEY ARE DOING

mergers, etc.

Arthur Holdsworth, formerly with Bradford Dyeing Association, has

Mr. Holdsworth

joined the sales staff of **Stein, Hall & Co., Inc.**

Towmotor Corp. has announced the appointment of Arch R. Smith as vice-president and general manager of the Grand Rapids, Mich., branch of The Frank Colker Co., Detroit distributors for the firm.

Jack N. Yetter is now manager of sales promotion of the **Twin Disc Clutch Co.** Succeeding him as manager of the Tulsa, Okla., district is Mel H. Woodward.

The west coast sales office of **United States Rubber Co.,** textile division, has moved from Los Angeles to 102 N. Brand Blvd., Glendale, Calif.

Arthur Schroeder, formerly with The Texas Co., is now southeastern

Mr. Schroeder

application engineer for **Warner Electric Brake & Clutch Co.**

Robert Nightingale, former chief engineer of the Colson Corp., has been named director of the engineering staff of **Wheeler Associates, Inc.,** Cleveland, Ohio.

John H. Lamothe was recently elected vice-president and general manager of the **Wheeler Reflector Co.** Charles D. Weston was named vice-president in charge of sales, and Fulton A. Eldridge, vice-president in charge of production.

Answers to Tax Quiz

(Questions appear on page 87)

In all these answers it is assumed that transactions are made in good faith and no special circumstances exist which would alter the effect.

1. b. A joint return is best for husband and wife, except for unusual situations, including some involving medical expenses and capital losses. It's wise to figure the tax both ways before deciding. If your wife uses her exemption in a separate return, you are not allowed to claim it in yours.

2. c. The interest on the first and second loans can be deducted as business expense. The interest on the third loan is a personal deduction, unless you use the standard deduction.

3. c. Certain types of organizations, such as religious and educational associations, are not required to pay tax, but you still must pay tax on interest received from their bonds.

4. b. The wages are deductible if they are reasonable. The exemption is not lost, if she qualifies in all other respects, until her gross income reaches $600.

5. b. Permission must be requested within the first 90 days of the year to be affected, except that application to change to LIFO (last-in, first-out) method may be filed with your return for the first year affected.

6. c. Your deduction for a charitable contribution is the value of the gift at the time it is made. You are not considered to have realized a taxable gain when you give away property that has increased in value.

7. d. The dependent may be either a U. S. citizen or a resident of the U. S., Canada or Mexico.

8. a. You establish your fiscal year when you file your first return after organizing your business. You may change it only with Government permission, requested at least 60 days before the proposed year-end date.

9. a. But if you had held the stock beyond six months you would have had a *long*-term instead of *short*-term capital gain. You would have been taxed on only 50% of the gain, and in no case would the tax exceed 26% of the gain.

10. c. The dividends are income to the child, provided the gift is considered genuine, and no return is required from anyone having less than $600 gross income.

BARBER COLMAN

UNIT HEATER
Control Center

Modern way to control unit heaters

In this handsome, prewired cabinet, you house all necessary controls for a unit heater—thermostat, disconnect switch with overload protection, summer-winter switch, pilot light, and terminal block. All field wiring leads to the numbered terminal strip. You reduce installation costs substantially. You get more, for less.

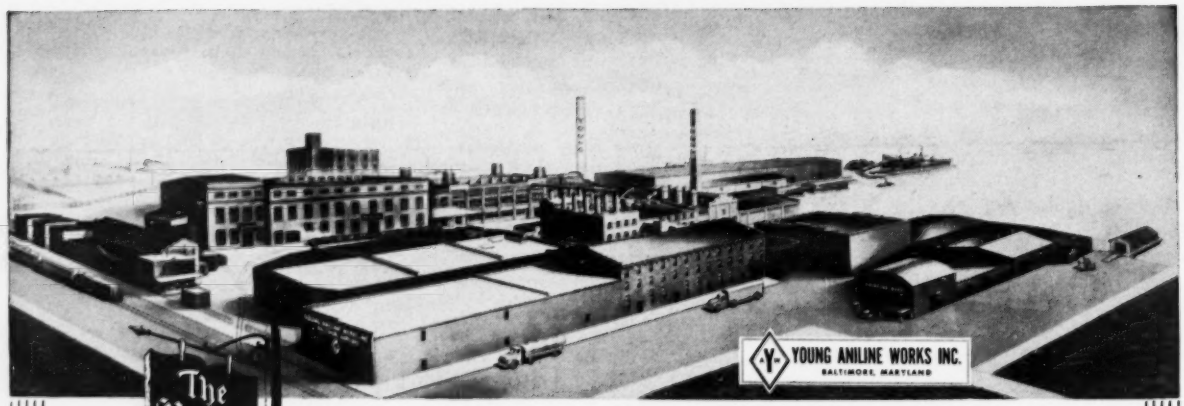
STREAMLINED CABINET
... for surface mounting. Adapter ring for flush mounting optional. Cabinet finished in attractive hammered gray.

ASK
For Bulletin No. T-1 ... gives you complete data plus typical wiring diagrams.

Consult nearby Field Office or write us

BARBER-COLMAN COMPANY, ROCKFORD, ILLINOIS, U.S.A.
Dept. B, 1340 Rock St. • Field Offices in principal cities

Automatic Controls • Air Distribution Products • Industrial Instruments
Aircraft Controls • Small Motors • OVERdoors and Operators • Molded Products • Metal Cutting Tools • Machine Tools • Textile Machinery



The House of Blacks

ACID BLACKS • DIRECT BLACKS
ACETATE BLACKS • LOGWOOD BLACKS
FORMALIDE BLACKS • DEVELOPED BLACKS

Consult your local dyestuff distributors for information and samples. Shipments can be made from their convenient stocks or from our Baltimore or Paterson warehouses.

YOUNG ANILINE WORKS, INC.

PATERSON OFFICE
50 E. 13th St., Paterson, N. J.

OFFICE AND FACTORY
2701-2733 Boston St., Baltimore 24, Md.

AYW

16,450,000 FEET OF *HOLT* MAPLE FLOORING!

Have gone into textile mills throughout the country since 1920—with complete satisfaction to the operators.

When you think of floors, remember to specify HOLT Flooring, made from carefully selected Northern Wisconsin-Michigan Hard Maple.

HOLT HARDWOOD COMPANY., OCONTO, WISCONSIN

Executive Views the News in Textiles

(Continued from page 93)

the country a service if they would stop whipping the same old horse and get down to a discussion of basic fundamentals.

Behind Textile Curtain

If you are not already sufficiently worried by our discussion of tariffs and taxes, we might mention in closing that recent information indicates that the Iron Curtain Nations are operating something like 21,000,000 spindles as of 1953. The incidental intelligence we received indicates that included in this group is the Union of Soviet Socialist Republics, Czechoslovakia, and Red China. Russia alone is said to be operating some 9,450,000 spindles. We hear that Iron Curtain countries will consume about 7,500,000 bales of cotton in 1953.

From these figures it seems that even though we may one day get to be on speaking terms with the Russians, the Kremlin is not going to be very much interested in buying American textiles. Instead, it seems that the pressure may be in the direction of selling Russian textiles to America. And it is at least a five to three bet that the cotton they use will not be American cotton!

Man-Made Fibers Appraised

(Continued from page 163)

some respects and lacking in others;

2. That they are more adaptable for some end uses than for others;

3. That they rise and fall in public favor not only because of their own attributes and limitations, but also because of price, fashion, style and performance when compared with other textile fibers.

Many of these inferences are contained in the accompanying table (page 163).

Other findings of special interest to the textile manufacturing industries are:

1. Nylon tricot fabrics with interesting colors and fancy patterns need to be created for use in men's shirts.

2. Puckered nylon fabrics used in sport shirts last year were too transparent, puckers became less noticeable after laundering, and lack or disregard of instructions resulted in ironing failures.

3. To continue in popularity for slips and gowns, nylon fabrics need new surface interest, particularly a good crepe effect. Nylon satins are not popular. Nylon challis are overpriced. It is believed that at the right price this item would be sensational.

4. The sueding operation needs to be improved to enhance appearance of felt finish nylon gloves for women.

Throughout the retail industry there is a continuing demand for more information regarding the newer man-made fibers. Through a well-informed salesforce, consumers learn much about merchandise. However, not all salespeople disseminate facts. Nor is the situation helped any by labels or by other promotional means which emphasize the attributes and ignore the limitations; or which engage in generalities.

A fine example of a good tag except perhaps for one or two statements is the tag that accompanies garments made of "Lorette," a Deering, Milliken & Company 55% Orlon-45% wool. There is need for more tags of this type.

It can be seen that much remains to be accomplished. New paths must be hewn; some old ones should be obliterated. Greater emphasis should be placed on adaptability, new constructions, fashion, style, surface effects, improved dyeing and finishing techniques. More widespread factual labeling and an industry program of consumer education should be resorted to. Last, but not least, the creation of minimum standards of performance based on end use should be a prime textile industry objective.

More widespread support of these suggested practices will have a profoundly beneficial effect upon the future welfare of the newer man-made fibers, the chemical industry's gift to the textile industry, to the retailer, and to our most important asset, the ultimate consumer.

Orr
SLASHER
Cloth
With Special
Chemical Treatment
Something New and Better

● Slasher Cloth is an important maintenance item in a cotton mill. With the introduction of ORR Slasher Cloth with Special Chemical Treatment, many of the problems which have pestered the slasher room foreman have been eliminated.
The slasher room foreman, in order to satisfy the superintendent and the cost department, must have available a Slasher Cloth that:

1. Dresses the yarn properly.
2. Holds its width. No shrinkage.
3. Maintains level production performance
4. Starts fast — lasts long.

ORR Special Treated Slasher Cloth maintains uniform dressing properties, resists bacteria and steam degradation, maintains dimensional stability. Discuss your Slasher Cloth problem with your ORR representative.

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279 Union St., New Bedford, Mass.
OLIVER D. LANDIS
718 Queens Rd., Charlotte 7, N. C.
Telephones: 3-0958—3-4557
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MANUFACTURED BY
THE ORR FELT & BLANKET CO.
PIQUA, OHIO, U. S. A.

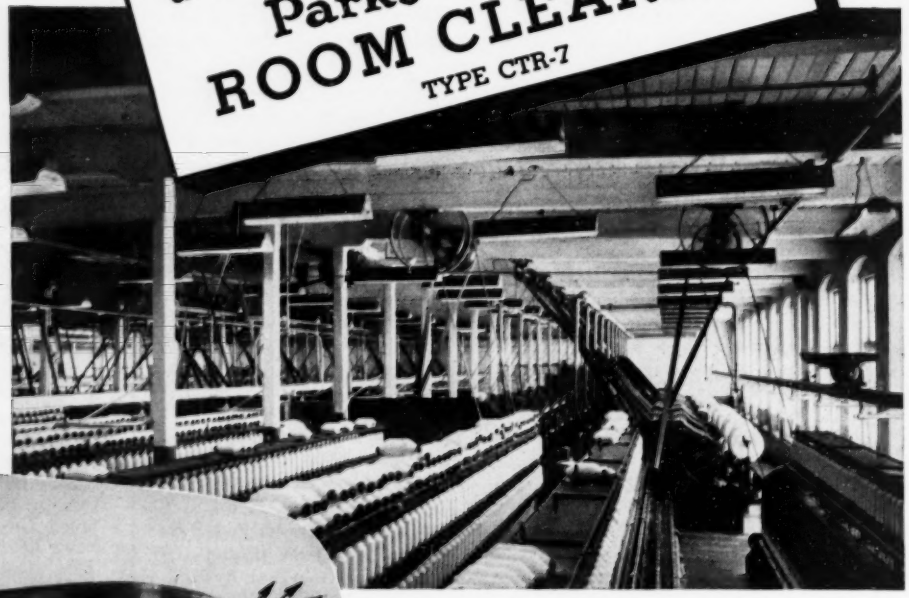
Industrial Woolens by Orr

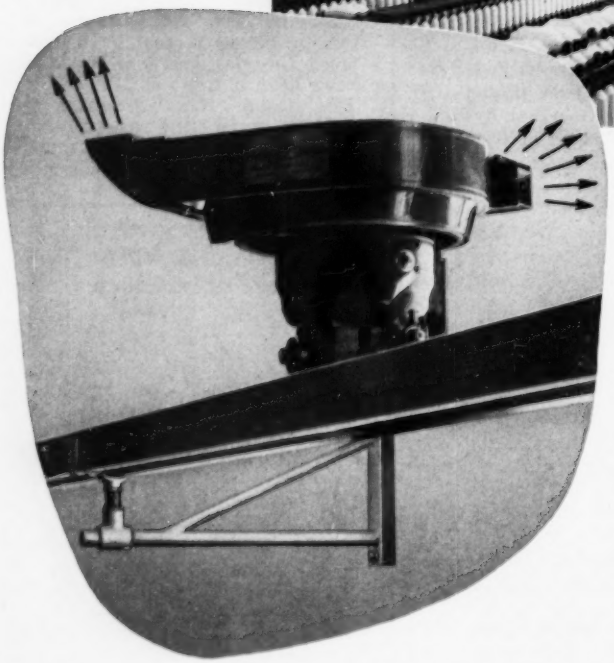
STARTS FAST — LASTS LONGER

Announcing

a new and more powerful Parks-Cramer ROOM CLEANER

TYPE CTR-7





Parks-Cramer Room Cleaner is shown above in a cotton card room of medium height. Note Cleaner track inconspicuously mounted just above head height along posts at left and wall at right.

More cleaning from less track, largely without the need for overhead hangers. Complete and thorough overhead cleaning of high or low ceiling rooms with or without overhead belts, shafting, etc.

Air from several outlets at different angles in an air distributor which revolves continuously in a full circle about a vertical axis.

Parks-Cramer track is safe. Has no exposed electric conductors.

Different air distributors available. Number, shape, direction and velocity of air currents are suited to the cleaning requirements in each mill area.

Within limits and where justified, can deliver air below the horizontal.

For further information write or phone

Parks-Cramer Company

FITCHBURG, MASS. CHARLOTTE, N. C. ATLANTA, GA.

394

Squirrel-Cage Motors Meet New NEMA Standards

(Continued from page 99)

period to fill the needs of those users who wish to complete current projects with motors as they are now being built.

The totally-enclosed fan-cooled motors are built to operate under a wider variety of adverse atmospheric conditions and in any mounting position.

Reliance Electric & Engineering Company, 1088 Ivanhoe Road, Cleveland 10, Ohio.

For additional data, request item B-308, using Handy Return Card on page 194.

NEW Equipment AND MATERIALS

Other items are described on pages 95, 97, 99

Aluminum Alloy Ring Holders for Spinning and Twisting

Aluminum alloy spinning and twister ring holders now available weigh only one-third as much as conventional ring holders, have more spring tension to hold the ring in place, will not rust or corrode, and their surface is smoother and they are easier to keep clean, the manufacturer reports.

Williams Machine & Tool Co., 709 S. Mint St., Charlotte, N. C.

For additional data, request item B-601, using Handy Return Card on page 194.

Electronic Warper Easy to Operate

For efficient beaming of cotton and other spun and continuous filament yarns over a long period of time with minimum maintenance, the Crowther electronic beamer, Series "D", is available. Ease of supervision and operation is afforded by the conveniently grouped instruments in both main arms, and all phases of operation are controlled by push-buttons. Colored electric signals assist the operator.

Beam is positively held and driven. Constant warping speed within plus or minus 1%, infinitely variable from 140 to 850 yards per minute, is attainable. Standard beams 54" wide and up to 36" diameter can be accommodated. Machine can also be built to accommodate up to 84" traverse knitting beams.

Hydraulic jacking system lifts from and lowers beams to floor. Yardage and revolution counters are electrically controlled.

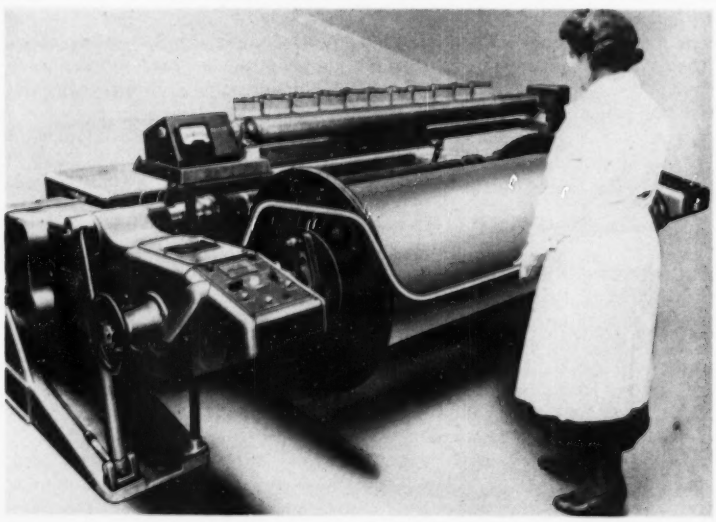
In case of continuous filament warpers, top guide roller is omitted, and a straight path of yarn is maintained.

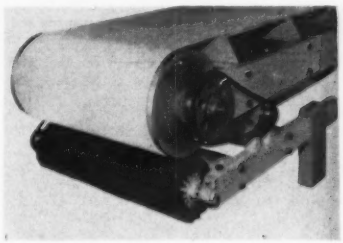
Operated in conjunction with electric stop motions on the creel, the headstock has built-in braking system which stops beam instantly. Pressure roller is optional feature.

Crowther Limited, Britannia Works, Thurmaston, Leicester, England.

For additional data, request item B-104, using Handy Return Card on page 194.

Crowther electronic beamer, Series "D".





Fullergript conveyor belt brush.

Belt Cleaner Driven by Conveyor Itself

Cylinder brushes for conveyor belt cleaning can be driven by a power take-off arrangement from the conveyor belt itself.

Designed for use with its Fullergript conveyor belt cleaning brushes, this drive assembly plan eliminates the need for a separate power unit by tapping the conveyor head pulley. A counter shaft, mounted across the conveyor supports, is chain-driven at one end by the head pulley while the other end is connected by chain drive to the brush.

The frame supporting the brush is suspended from the counter-shaft in a manner resembling a Ferris wheel chair, with the brush at the front and

adjustable counterweights in the rear. Brush pressure against the conveyor belt is controlled by moving these counterweights. Brush speed is varied by changing the diameter of any four pulleys.

Brushes are made in standard conveyor widths with a variety of core and shaft sizes and fill materials.

Fuller Brush Co., Industrial Division, Hartford 2, Conn.

For additional data, request item B-503, using Handy Return Card on page 194.

For Wrinkle Resistance and Shrinkage Control on Glazed Chintz, etc.

A new resin, Aerotex Resin UM Special, has greater solubility and pad bath stability in addition to less caking tendency in containers at high temperatures. It produces a durable wrinkle resistance and gives shrinkage control on cellulosic fabrics.

The product is especially well adapted for use in glazed chintz and embossing formulas where the maximum of durability is desired.

American Cyanamid Co., Textile Resin Dept., 30 Rockefeller Plaza, New York 20, N. Y.

For additional data, request item B-504, using Handy Return Card on page 194.

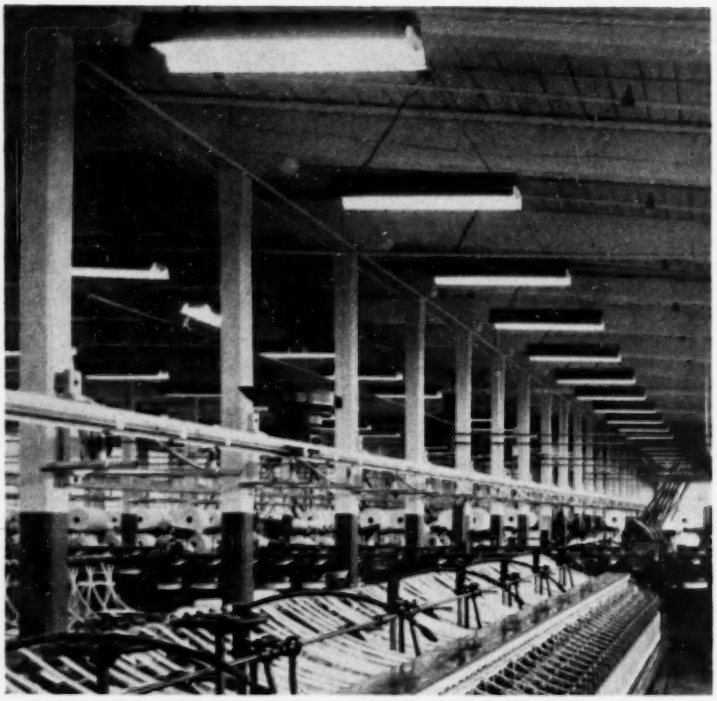
Instantaneous Needle Feeding Device for Gill Box Needle Bars

A device now on the market eliminates the individual feeding by hand of needles into the gill box needle bar. The complete set of needles for a bar is supplied mounted on a strip which is placed in a device which permits feeding all needles simultaneously into the needle bar in a few seconds.

This apparatus is simple and foolproof and provides considerable saving in time and work.

American Laubscher Corp., 333 West 52nd St., New York 19, N. Y.

For additional data, request item B-106, using Handy Return Card on page 194.



Parks-Cramer Type CTR-7 room cleaner installation. Note ceiling.

Room Cleaner Eliminates Hand Blow-Down

Stronger cleaning action and much wider overhead coverage are principal advantages of the new Parks-Cramer Type CTR-7 room cleaner. According to the manufacturer, the device is so thorough in its cleaning action that hand blow-down of overhead areas is eliminated in most cases after the cleaner is installed. Thus, maintenance costs are reduced, production is increased, product quality is improved, and housekeeping greatly simplified.

Track may be located low down in the room and farther apart than previously. Posts and walls may be utilized for track supports, with a minimum need for ceiling support.

The air distributor contains several separate air outlets, each at a different angle to the vertical. Inclined air currents are revolved continuously in a complete 360-degree circle about a vertical axis as the unit travels along the track.

Different air distributors are available. Number, shape, direction and velocity of air currents are suited to cleaning requirements in each mill area.

Parks-Cramer Co., Fitchburg, Mass.

For additional data, request item B-301, using Handy Return Card on page 194.

Continental-SRRL Opener Made in Two Widths

The Continental-SRRL lint cotton opener, which is manufactured according to the design developed by the Southern Regional Research Laboratory of the U. S. Department of Agriculture [described in TI for May, 1951, page 107], now being produced includes all improvements in design which have been developed to date.

While the machine was developed primarily for cottons of Strict Low Middling grade or lower, it is an excellent blender and this feature makes the opener valuable for the higher grade cottons. A considerable amount of trash is discharged by the machine, although its principal function is to open and fluff the cotton.

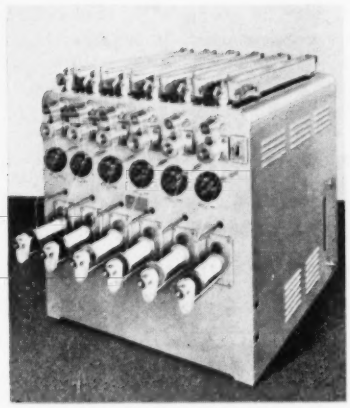
Power consumption is low since ball bearings are utilized throughout. Saw cylinders and doffers are

equipped with V-belts, idlers being provided for belt adjustment.

The opener is manufactured in two widths, 38⅞" width frame carrying 35⅝" long saw cylinders and 19¼" frame carrying saw cylinders 16" long. The larger machine has a capacity of 2,000 pounds lint cotton per hour as compared to approximately 1200 pounds per hour for the smaller unit.

Continental Gin Co., Birmingham, Ala.

For additional data, request item B-112, using Handy Return Card on page 194.



Steele Model 115 thread stretcher.

Hot Stretching Machine for Synthetic and Cotton Threads

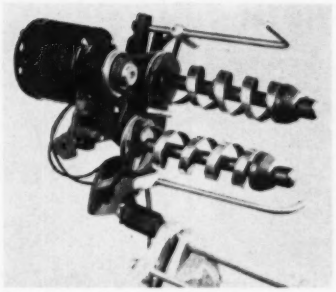
Synthetic and cotton thread from 140 to 1000 deniers in size can be stretched at speeds of 50 to 300 ypm on each of the six spindles of the Model 115 hot stretching machine. Nylon thread processed on the machine has its elongation reduced to approximately 12% with an increase in tenacity and strength.

Each spindle is driven by an individual direct current motor giving a slow start and infinitely variable speed control. Power conversion units required to obtain d-c current are enclosed in the base. Thread break control is provided on each spindle.

Thread is stretched between rolls of different diameters at the front and rear of the machine and heated to 410 F by contact with heater on top of machine.

W. M. Steele Co., Inc., 171-175 Fremont St., Worcester 3, Mass.

For additional data, request item B-505, using Handy Return Card on page 194.



Motor-driven Taker-Outer.

Machine Pulls Cloth to Full Width and Turns Back Doubled Selvages

A new machine utilizing fast revolving spirals to fluff cloth and turn back doubled selvages is a motor-operated version of the Taker-Outer, a cloth-operated machine introduced some time ago. A feature is its ability to pull cloth to its full width while it is turning back doubled selvages.

The spirals are operated in conjunction with a three-step pulley. This permits the spirals to move faster than the cloth is traveling past them. Spirals can be furnished of stainless steel, rubber or hardwood, impregnated with plastic.

The machine can be attached to cloth guiders, put on brackets, or on stands supplied by the manufacturer. These stands have bases, uprights, guide rods and cross screws for narrowing or widening the position of the spirals.

Guider, Roll and Service Co., P. O. Box 3747, Daytona Beach, Fla.

For additional data, request item B-506, using Handy Return Card on page 194.

Redraw Cap for 1⅞" Diameter Nylon Shipping Pirn

A new size laminated plastic redraw cap for nylon shipping pirns is available to fit the new larger size (1⅞-in. diameter) pirns currently being shipped from the du Pont Seaford plant.

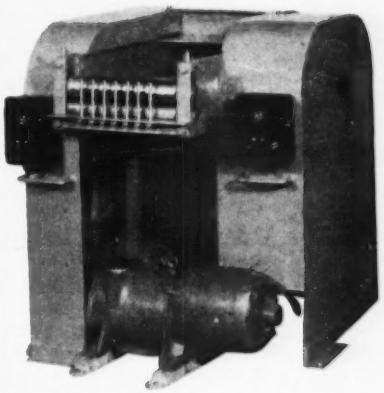
Machined from paper base tubing to an extremely smooth finish, Synthane redraw caps permit yarn to be drawn from the pirn without snagging. A stainless steel snap ring locks the cap securely in position.

Synthane Corporation, Oaks, Pa.

For additional data, request item B-507, using Handy Return Card on page 194.

HERE'S THE MACHINE WITH WHICH TO

Cut Precision Flock



This Taylor Stiles cutter is used by most manufacturers of precision flock, because it has the mechanical features they require to produce flock to ½ mm or 1 mm without "grandfathers".

Naturally manufacturers do not divulge details of their processes which depend on the material used, its pretreatment and the method of feeding to the cutter.

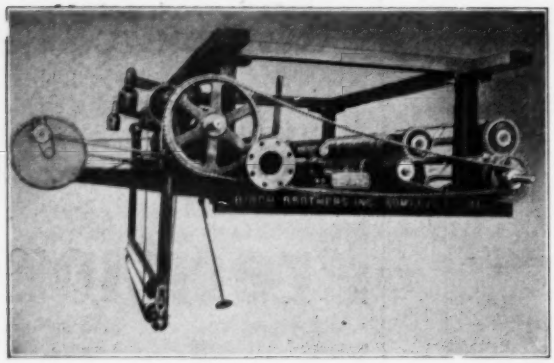
So we can only ask you to examine this machine which has the inherent accuracy to produce precision flock.

Write for description of the Taylor-Stiles cutter for your specific requirements.

TAYLOR-STILES and Company
CUTTING MACHINES & KNIVES

204 Bridge Street Riegelsville, N. J.

FROM ROPE TO OPEN WIDTH



HEAVY DUTY BALL BEARING SCUTCHER

or CLOTH OPENER for opening cottons, synthetics, woolens and pile fabrics at high speed. Machine is made with or without Folder and Vacuum Extractor. Rugged construction insuring long life and low maintenance. The most substantial Opener built. When used as illustrated machine opens, extracts, and folds the cloth in one operation, saving time, and space. Excellent extraction is obtained by the use of our Patent Adjustable Slot Vacuum Extracting Box.

SINGLE-BAR CURVED RUBBER EXPANDER with increased thickness of rubber giving longer life and better stretch, and fitted with trouble-proof bushings. Also made with 3 Bars.

"See us at Atlantic City in April"

BIRCH BROTHERS, Inc.

Harold W. Birch Clifford W. Birch Clifford W. Birch, Jr.
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SOMERVILLE 43, MASS.

Dyeing and Finishing Machinery and Mill Sewing Machines

Southern Representative:
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KENTEX TEXTILE APRONS

Precision-built, of genuine leather, they "Fit Better—Wear Longer." Write for free samples and prices.

KENTEX APRON

TEXTILE APRON CO., East Point, Ga.

HUGH WILLIAMS & COMPANY, TORONTO, CANADA—CANADIAN REPRESENTATIVE

Control **MAXIMUM PRODUCTION**

with G. S. HAND TACHOMETERS *and* SPEED INDICATORS

1% Accuracy for any range from 30 to 100 000 RPM or surface speed.
Antimagnetic durable mechanism.
Efficient repair service at moderate charges.

IDEAL FOR MOTORS - SHAFTS - SPINDLES - LOOMS - TURBINES - FOR TEXTILE AND POWER PLANTS

WRITE FOR ILLUSTRATED FOLDER

GEORGE SCHERR CO., INC.
200-L LAFAYETTE ST. • N.Y. 12, N.Y.

NEW Equipment AND MATERIALS

Electric Motor Line with More Versatile Mountings

A new line of electric motors in open drip-proof, totally-enclosed, fan-cooled, and explosion-proof enclosures is available in ratings up to 40 hp at 3600 rpm. These new motors are built in accordance with the new NEMA frame size standards, and the smaller frame sizes will be available early this year.

Features of this "L. A. line" include: modern styling, improved ventilation, greater protection, a new conduit box arrangement, new bearing construction, and more versatile mounting.

The Louis Allis Co., Milwaukee 7, Wis.

For additional data, request item B-508, using Handy Return Card on page 194.

New Sizing and Desizing Agents

The following sizing and desizing materials manufactured by Kalle & Co. in Western Germany (formerly I. G. Farben) are now available in the United States:

Tylose—Water soluble cellulose derivative for sizing is neutral and stable over indefinite periods of time, resisting action of molds, fermentation, and insects while in storage. Simple hot water rinse removes it.

Viveral R.P. Conc. — A colorless enzyme product suited for desizing fabrics containing starch. Heat resistant, it will not affect any textile fibers, even dyed ones. It is fast acting, available in standardized form, and will not deteriorate in efficiency when stored in dry room.

Biolase P (Soft Water)—Of pure vegetable origin, it is odorless and free from anything tending to weaken fibers. Used for desizing raw and fast dyed textiles of all types. Highly recommended for removal of thickenings from printed materials. Will not dull or damage shade of raw or fast dyed materials.

Biolase C12 Powder (Hard Water)—For desizing raw materials as well as dyed goods, and is most effective for cotton goods and blends of cotton and rayon. Dissolves completely in cold water, yet is resistant to moisture and high temperature.

One Bath Process Biolase—Can be used (1) for dyeing and desizing cottons and blends in one bath; (2) for desizing, scouring, and dyeing in one bath of spun rayon and blends of cotton and spun rayon; (3) for dyeing without previous desizing and scouring.

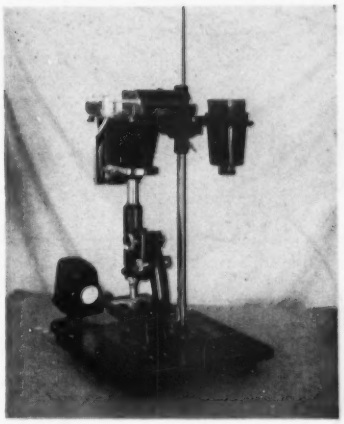
The Henneux Co., 45 Columbus Ave., New York 23, N. Y.

For additional data, request item B-602, using Handy Return Card on page 194.

Photomicrographs Can Now Be Had in 60 Seconds

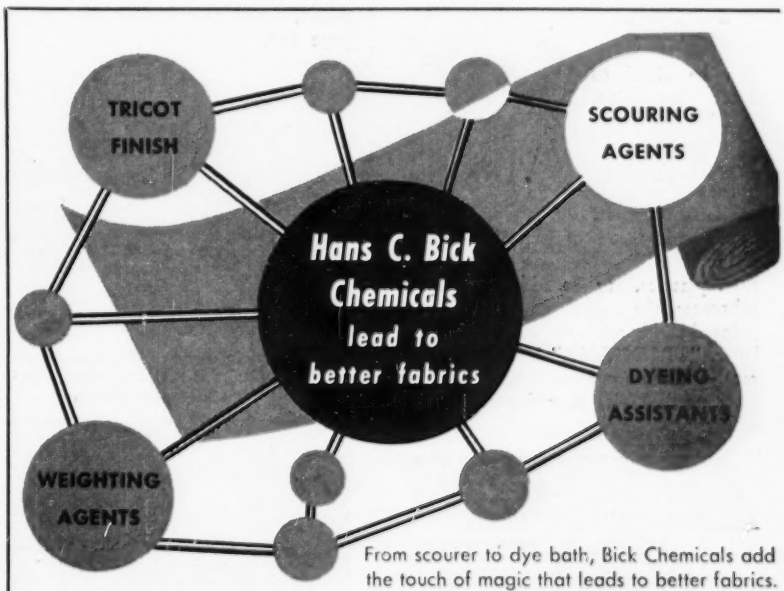
With the easy-to-use Polaroid Land Camera, a microscope, and microscope stand, critical photomicrographs of any subject—fabric, yarn, fibers, etc.—can be produced ready for study in 60 seconds.

The Polaroid Land camera, which essentially "contains its own dark room," utilizes photographic materials of high sensitivity and wide latitude from the standpoint of exposure.



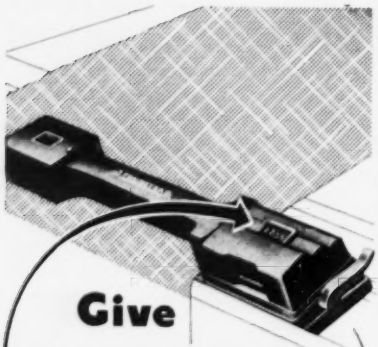
Polaroid Land Camera, microscope, and stand (Central Scientific).

Typical of the uses of this equipment are: (1) Study of swelling techniques in connection with problems of fiber structure; (2) Quality control in the mill where steps must be taken as soon as possible after the chart indicates that there is or is about to be a lack of control — immediate records of present and immediately following behavior of machine or material may be made for study by the person making the changes or by the



From scourer to dye bath, Bick Chemicals add the touch of magic that leads to better fabrics. They're produced by the same manufacturing chemists who originated the "Nylonized" Finish—the wonder finish that gives fabrics a new beauty and softness. A field staff backed by Bick's 23 years of experience in textile chemicals will gladly work with you. What's more, testing laboratories are always at your disposal. Contact Bick now. Whether it's a pound or a carload, delivery is the same . . . *immediately.*

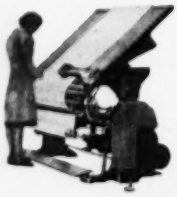
Hans C. Bick INC.
MANUFACTURING CHEMISTS
Reading, Penna.



Give your customers what they pay for

Kill short measure for good! Convince your customers with *accurate* clearly-printed records — it's so easy with "TRUMETER." At any point on a run, the touch of a lever will deliver a ticket or mill tag carrying an exact record of production. It's a sure way to cut complaints — and slash waste, too. That's why you can't afford to be without "TRUMETER" — for PROFIT'S sake!

"TRUMETER"



can be fixed to most Inspection, Plaiting, Winding, Rolling and Doubling machines. Models are available for all types and widths of material — fine nylon, woolens, worsteds — even carpets, plastics, etc. It adds one way—subtracts the other, and delivers its printed ticket with one depression of a lever. "TRUMETER" is always accurate — always reliable. There's one for *your* need. Write now for particulars of complete line.

"TRUMETER"

MECHANICAL COUNTERS
for most industrial needs

• MEASURING • REVOLUTION
• PRE-DETERMINED • STROKE

Write for details of full line to

TRUMETER COMPANY
1265 Broadway, New York City, N. Y.

NEW Equipment AND MATERIALS

quality control man himself.

Polaroid Corp., Cambridge 39, Mass., or Central Scientific Co., 1700 Irving Park Road, Chicago 13, Ill.

For additional data, request item B-510, using Handy Return Card on page 194.

Creel-Mounted, Automatic Cleaner for Spinning

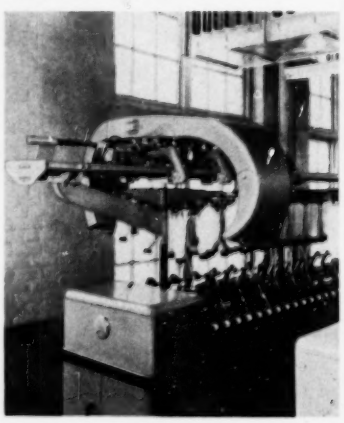
A creel-mounted, automatic cleaner for spinning frames, designated the "Tri-Rail," has been perfected and is now available from American MonoRail for either Gwaltney, standard, or umbrella creel frames of any make, as well as for twisters and winders.

Thus, the company is in a position to furnish either the creel-mounted or ceiling-mounted automatic cleaners for spinning, whichever is best suited for the particular plant conditions.

The American MonoRail Co., 13107 Athens Ave., Cleveland 7, Ohio.

For additional data, request item B-511, using Handy Return Card on page 194.

Above, close-up of American MonoRail's Tri-Rail cleaner. Below, mill installation photo.



IT'S PURE LOGIC...

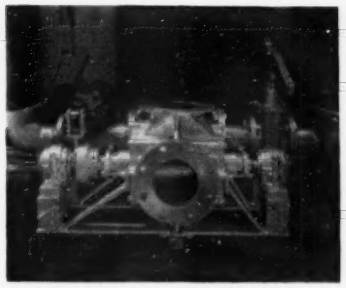
In modern time, when the success or failure of a mill depends so heavily on its technical knowhow, a mill man can't afford to overlook any source of information that may help him make his operation more efficient.

And TEXTILE INDUSTRIES is one of the best. It has been known for 54 years as the production and management magazine of the industry. So read your copy of Textile Industries to keep up with the latest technical advances . . . it's pure logic!

TEXTILE INDUSTRIES

806 PEACHTREE ST.
ATLANTA, GA.

Four-Way Reverse Valve for Package Dyeing



This ball-bearing, four-way reverse valve is suitable for use with package dyeing machinery and all other hydraulic equipment requiring the reverse flow. Advantages are its simplicity of operation and perfect alignment by use of ball bearings. The valve can be manufactured of all stainless steel or any other type of metallurgical specifications that might be required.

The photograph shows the valve being installed in the piping system of multiple beam dyeing machinery with actuating cylinder for automatic control.

Morton Machine Works, Columbus, Ga.

For additional data, request item B-310, using Handy Return Card on page 194.

For Printing Textiles by Oil-in-Water Emulsion System

For fast-color printing of cotton, rayon, nylon, acetate, and other fabrics a new series of resin-bonded pigment colors, known as Aquabond Pigment Colors, is available. Although the colors can be used in the form of aqueous dispersions, at present they are generally applied in the form of oil-in-water emulsions.

A wide range of shades possessing excellent all-round fastness properties is provided by the colors which are suitable for machine printing on conventional types of equipment.

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Prints produced with new colors are characterized by their brilliancy of shade and high degree of fastness to washing, drycleaning, and crocking. Because the prints do not bleed when washed, discoloration of white grounds is avoided. Selected colors in the series have exceptional fastness to light, making them particularly desirable for printing drapery fabrics. Excellent resistance to caustic cut out in plisse work is also provided.

Interchemical Corp., Textile Colors Div., Hawthorne, N. J.

For additional data, request item B-307, using Handy Return Card on page 194.

New Books

Fiber Microscopy, by Dr. A. N. J. Heyn, professor of natural and synthetic fibers, School of Textiles, Clemson (S. C.) College, includes the microscopic study of the individual textile fibers in the laboratory as well as the theoretical background necessary for this study. Material for both an elementary course and for advanced work is contained in the 420-page book. Interscience Publishers, Inc., 250 Fifth Ave., New York 1, N. Y. (price, $5.50).

The twelfth of a series of "Textile Manufacturer" monographs is entitled *Primary Aspects of the Power Loom*, having been written by Wilfred Middlebrook. Warp let-off, shedding, picking, beat-up, and cloth take-up are dealt with in that order in the 148-page, paper bound, pocket-size book. Published by Emmott & Co. Limited, 31 King St. West, Manchester 3, England.

F B I Register of British Manufacturers—1954 has been published for the Federation of British Industries by Kelly's Directories Limited, and Iliffe and Sons Limited, Dorset House, Stamford St., London, S.E. 1, England. Buyers' guide classifies over 6500 F B I member firms under more than 5000 alphabetical trade headings, while full details about the firms are given in a comprehensive alphabetical directory. Other sections provide information about trade associations, proprietary names, trade marks, etc.

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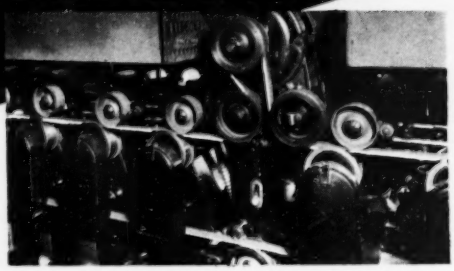

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NEW Equipment AND MATERIALS

Industrial trucks with centralized lubrication systems are now available. Complete and thorough lubrication of the truck in minimum time and with a minimum of effort is provided.

Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 3, Ohio (B-201).

A new line of **mixed bed water demineralizers** features the latest engineering developments in the ion-exchange process of water purification. Included is an improved system for regeneration of the purifying resins after they have become exhausted. Capacities from 50 to 2,500 gallons of mineral-free water per hour.

Barnstead Still & Sterilizer Co., 2 Lanesville Terrace, Forest Hills, Boston 31, Mass. (B-202).

Eight standard shades of **"color-spun" Dynel staple fiber** have now been selected for production: black, navy, brown, tan, green, yellow, grey, and light blue.

Textile Fibers Dept., Carbide and Carbon Chemicals Co., 30 East 42nd St., New York 17, N. Y. (B-203).

A new **fork truck automatic braking feature** available as optional equipment on Yale gasoline and diesel fork trucks is designed so that when operator leaves truck for any reason, driver's seat rises instantly, causing parking brake to be applied. Also, time delay permits engine to idle for three minutes before automatically cutting off.

The Yale & Towne Mfg. Co., Yale Materials Handling Div., Philadelphia, Pa. (B-204).

A 26 per cent active slurry form of Igepon made from tallow is the first **tallow-based synthetic detergent** to be offered in commercial quantities.

Antara Chemicals Div., General Dyestuff Corp., 435 Hudson St., New York 14, N. Y. (B-207).

The Viscometran, a flexible and rugged industrial instrument, provides a practical method of supplying continuous **measurement, recording, and control of viscosity.** May be used on either a tank, kettle, or in a flow line by-pass.

Brookfield Engineering Labs., Inc., 240 Cushing St., Stoughton, Mass. (B-209).

Scissors falling from sewing machines and becoming broken or injuring the operator can be eliminated simply by attaching a Bechik **"Sta-Put" magnet** to the most convenient edge of the sewing machine table. Scissors are placed over it when not in use.

Bechik Products, Inc., 650 Eustis St., St. Paul 14, Minn. (B-210).

A light-weight, **quick-detachable air coupler** offers 35% greater air flow, yet weighs only 4½ ounces. Couples or uncouples with one push or pull. Check valve cuts off flow of air when coupler is detached from nipple.

Lincoln Engineering Co., 5701 Natural Bridge Ave., St. Louis 20, Mo. (B-211).

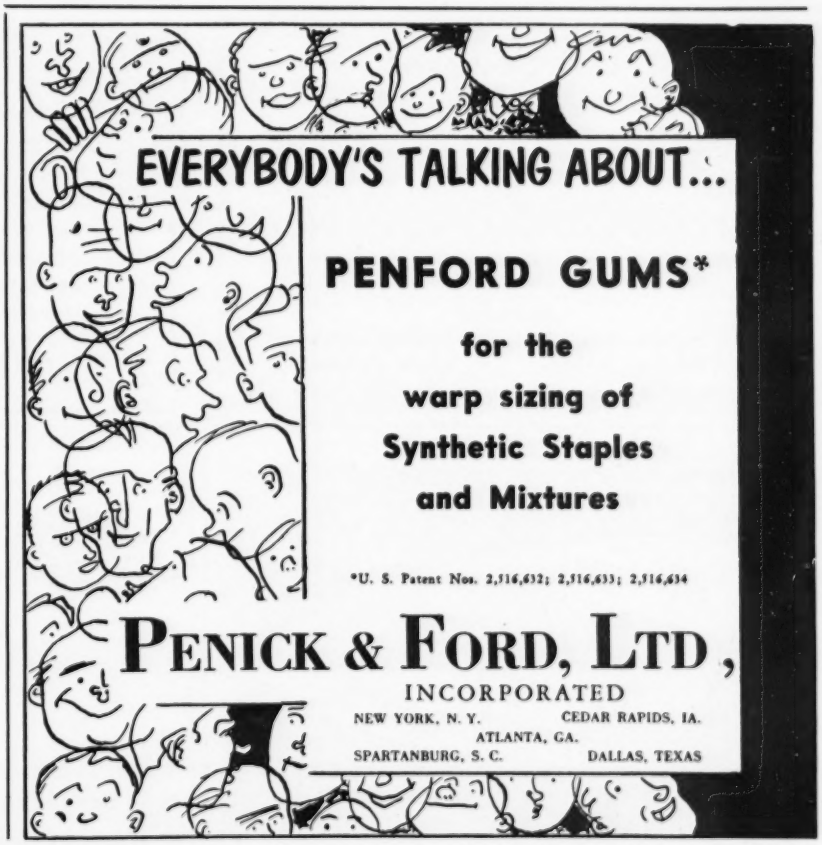
Fork truck versatility is increased by utilizing a **combination pallet, drum, and box handler** which can be installed on all Yale hydraulic fork trucks. Lever controls enable operator to vary fork spread hydraulically between 18" minimum and 62" maximum.

Yale Materials Handling Div., The Yale & Towne Mfg. Co., Philadelphia, Pa. (B-212).

A **portable recording hook-on voltammeter,** designated G-E Type CF-7, for obtaining permanent records of alternating current and voltages, combines features of a self-latching multi-range hook-on current transformer and the simplicity of an inkless recorder in equipment suitable for indoor and outdoor applications.

Meter and Instrument Dept., General Electric Co., Schenectady 5, N. Y. (B-213).

For economical and efficient use on cold water, hot water, or low pressure steam lines is a low pressure Fiberglas **pipe insulation,** a ½-inch thickness of which, due to its extra heat-stopping value, equals the performance of ¾-inch to 1-inch thicknesses of many other materials



commonly used. Can be used outside as well as indoors if jacketed with waterproof material.

Owens-Corning Fiberglas Corp., Toledo 1, Ohio (B-214).

A **moisture separator** for use in horizontal steam, air, and gas lines, identified as the 31-N, occupies scarcely more space than section of pipe it replaces, operates on centrifugal force principle, is self-cleaning, and may be used with a wide range of pressures to deliver clean flow to equipment.

Wright-Austin Co., 3245 Wight Street, Detroit 7, Mich. (B-215).

Capable of withstanding a 100-hour salt spray test is the AISI 420 **corrosion-resistant steel "Rollpin,"** a slotted and chamfered cylindrical spring pin for such uses as pinning gears or pulleys to shafts, hinge pins, dowels, replacements for cotter pins, and as shafts for small gears.

Elastic Stop Nut Corp. of America, Union, N. J. (B-216).

Confusion and reading errors are minimized when measuring speeds with the new Metron **hand tachometer,** by a noval thumb-operated range selector which automatically changes scale numbers for each range. Correct number of rpm per scale division is brought into view, eliminating need to "figure out" scale markings for each range.

Metron Instrument Co., 432 Lincoln St., Denver 3, Colorado (B-217).

A new **thermocouple protection tube,** the LT-1, combines the thermal conductivity and shock resistance of metal with the oxidation and deformation resistance of ceramics. Time lags in temperature response

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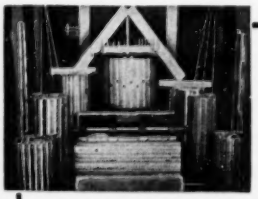

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The Bristol Co., Waterbury 20, Conn. (B-218).

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Penco Engineering Co., 25 California St., San Francisco 11, Calif. (B-219).

Wide speed ranges, smooth and powerful starting, stepless acceleration, close speed regulation, fast response, high overload capacity, conveniently centralized control, power applied directly, quiet operation, savings in floor space, installation economy, and minimum maintenance are principal operational advantages and performance features of the new Reliance Xatron **mercury rectifier drive** for adjustable speed service. Currently available in 30, 40, and 50-hp ratings.

Reliance Electric & Engineering Co., 1088 Ivanhoe Rd., Cleveland 10, Ohio (B-220).

Conax **quick-disconnect thermocouples** provide quick, easy assembly and disassembly by simply plugging the polarized jacks together and turning the nut finger tight. Fast response rate, accuracy, ease of use, and dependability make these thermocouple connectors ideal for many laboratory and industrial applications.

Conax Corp., 4515 Main St., Buffalo 21, N. Y. (B-221).

Valve failures are eliminated in **Gyroseal valves** by construction that causes the disc to rotate rapidly at the moment of closure. Thus foreign particles are thrown off by centrifugal force and the turbulence created keeps the particles in suspension while the disc is gently polished against the seat.

Richmond Foundry and Mfg. Co., Richmond, Va. (B-222).

A "super-power" **V-belt** now on the market has a horsepower capacity average of 40% over standard V-belts and lasts longer. On new drives, narrower sheaves may be used, saving space, because fewer belts are required for the same power demands. There is practically no stretch, eliminating belt matching problems.

Raybestos-Manhattan, Inc., Manhattan Rubber Div., Passaic, N. J. (B-223).

Audit of record making and record keeping practices can now be conducted in a matter of days, rather than weeks or months, by a new technique which determines immediately whether a problem exists and, if so, what action is necessary to eliminate that problem.

National Records Management Council, 50 East 42nd St., New York 17, N. Y. (B-224).

Capable of gathering operating data from 24 separate sources and logging the collective information on a single circular chart, both the **Tektolog and Null Balance Recorder** provide accurate measurement for a vast range of industrial processes and laboratory applications.

Fielden Instrument Div., Robertshaw-Fulton Controls Co., 2920 North Fourth St., Philadelphia, Pa. (B-225).

Designed to help management to measure employee progress, and to provide some objective yardstick for promotions, wage adjustments, job transfers, and lay-offs are a simplified **merit rating system** and forms for use within a company by its personnel department. Combined with the I.P.I. Job-Tests Program, the Merit Rating Series offers the basis for a manpower inventory, an objective audit of individual employee and total company strengths and weaknesses.

Industrial Psychology, Inc., 4747 Fort Lowell Rd., Tucson, Arizona (B-226).

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Walter G. Legge Co., 101 Park Ave., New York 17, N. Y. (B-227).

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Reeves Pulley Co., Columbus, Indiana (B-228).

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News in Brief

(Continued from page 89)

Want Fashion Promotion for Hose. Officials of several full-fashioned hosiery mills have indicated their desire for more fashion and sales promotion to secure consumer acceptance of their products. They claim too much attention is directed to gauge, denier, and machine technology, about which sales personnel and consumers know very little.

Waterproof Material. "Aeroplast" is a new P.V.C. material in Germany. It is used for lining light coats which are subsequently water and windproof. At the present time it is only manufactured by the firm of Wilhelm Baldermann, Bremen, in rayon coats, dresses, etc. It is expected to be widely used for camping equipment, tents, and for every kind of winter clothing and swim suits.

Ala. Textile Education Foundation. The Alabama Cotton Manufacturers Association and the Textile Advisory Committee have established an Alabama Textile Education Foundation from which funds will be available for training qualified graduates in the field of textile technology. Funds will be solicited by the Foundation from all branches of the textile industry and will be used to provide additional staff members, to promote research, and to provide equipment and other needs of the textile school at Auburn.

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Send for your application blank today. Details on page 85

World Wool Output at Peak. World wool production in 1953 was at an all-time high of 4.4 billion pounds, grease basis. This is an increase of 80 million pounds over the previous year, the Foreign Agricultural Service reported.

NLRB Gets Priority Over State Court. The U. S. Supreme Court has indicated that federal law is supreme in regulation of labor-management relations, by specifying that where state and federal laws are parallel, the federal administrative group undoubtedly has jurisdiction. The Supreme Court set aside a state court injunction in that the case should have been handled through the NLRB.

Rule on Substandard Hose Marking. An interpretation by the Division of Trade Practice Conferences of the Federal Trade Commission sets forth that the use of rider tickets, labels, or tags affixed or attached to hosiery (made for export) in lieu of a marking upon the hosiery itself does not meet the requirements of the hosiery marking rules governing substandard goods, namely: "irregulars," "seconds," or "thirds," as the case may be.

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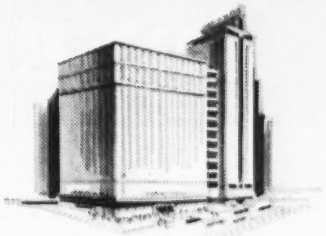

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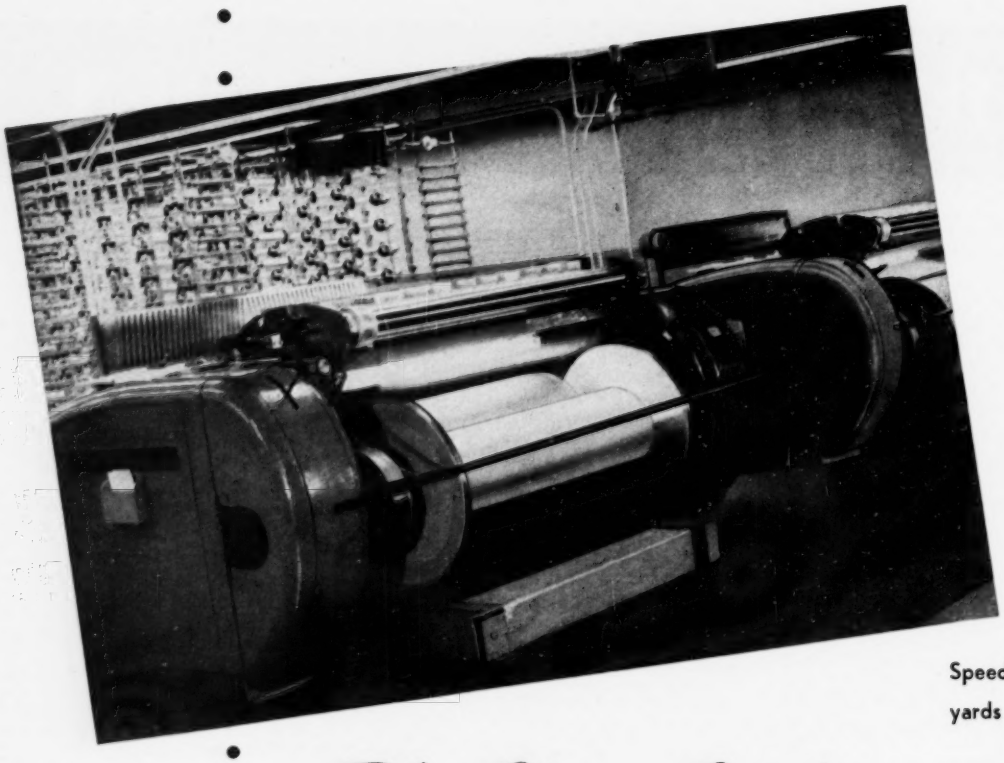

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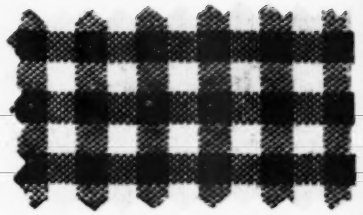

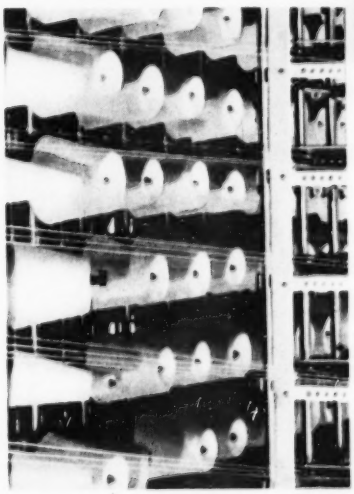

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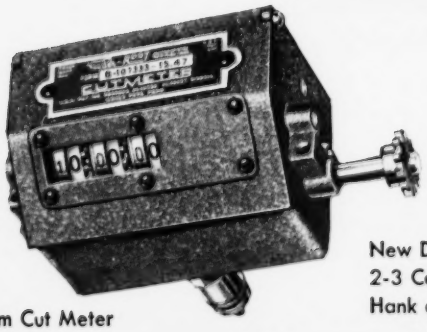

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